

THE UNIVERSITY OUTSIDE EUROPE

*ESSAYS ON THE DEVELOPMENT OF
UNIVERSITY INSTITUTIONS IN
FOURTEEN COUNTRIES*

Edited by
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Preface

TO a previous volume, entitled *The University in a Changing World*, and dealing (in the main) with the universities of Europe, I had the honour of contributing an essay on Universities in Great Britain. To this volume, which deals with the University outside Europe, I have the pleasure, on the invitation of the Editor (with whom I have discussed its plan), of contributing this preface.

The universities overseas may be divided into two main types. One is the type to be found in new colonial countries, to which the settlers have transplanted, and in which they have developed, on their own lines, to suit their own conditions, the University of their original mother-country. The other is the type to be found in countries of an old civilization, which have been connected with or influenced by European countries, and in which the example of the European University, in one or other of its forms, has been adopted, followed, or modified.

In the arrangement of the volume which deals with these overseas universities (many of them greater than the universities of Europe, and some of them engaged in work of even greater influence in the life of the countries which they serve) it would have been possible to group the chapters according to these main types. It would equally have been possible to group them chronologically, according to the dates of the foundation of the universities which they describe, or again, geographically, according to the continents or regions which they serve. The arrangement which the

Editor has adopted is in the nature of a compromise, which I think will command the approval of all readers. He has begun with the universities of the United States. He has proceeded to the universities of the self-governing British Dominions, making Canada the bridge. From them he has passed to the universities of India, which, on the one hand, share some of the problems of the Dominion universities, and, on the other hand, illustrate the type of university to be found in countries of an ancient civilization. The universities of India have naturally led to the universities of the Far East, in China, Japan, and the Netherlands Indies; and these, in their turn, by another natural transition, have led to the universities of the Near East, the description of which completes the picture of Asia and the general circumnavigation of the overseas universities. With these universities of the Near East, closely connected with Europe not only in geography but also in other respects, we come back to our own borders; and indeed we may be said to face (notably in the Hebrew University of Jerusalem) our own European problems. Nor is that all. We are also brought face to face with that Moslem civilization which has for so long, and at so many points, been in contact with Europe.

It is a wide survey, which must necessarily be cursory. But it inevitably suggests, and I believe that it helps to elucidate, a number of problems. Foremost among them is the problem of the place of the University in national life. Should the University seek to be, or content itself with being, a technical institution, or a sum of such institutions, preparing men and women for work in the professions? In a colonial country there is, at any rate originally, a dearth of professional skill; and here the first and most natural demand on universities will tend to be the provision of such skill—the training of a clergy (which was the original purpose of some of the American universities); the training

of lawyers, doctors, teachers, and engineers. Even in a country of ancient civilization the same demand may be made; and the native and indigenous people, reluctant to be professionally staffed from outside, may justly desire its own training and its own professional opportunities.

Another conception of the place of the University in national life relates it to politics. On this conception the University is expected to be a focus of political ideas and a stimulus to political activity. This is a conception which may be readily cherished in the universities of those countries which are learning to combine an ancient civilization of their own with new and western forms of government which have been imported or are being imitated. Here the University, willy nilly, comes to be a home of political interests among students, and is expected to provide a training-ground for politics and a stepping-stone to a political career. Nor is this a thing which is necessarily to be deprecated. Where self-government is being attempted, there must be a school of preparation for the leaders, and the preparation must include political interests and even some measure of political activities. On the other hand, premature interest in politics is apt to prove a distraction from other and more exacting studies; and when the University is drawn into politics, it may lower its standards of impartial devotion to truth and lose the quietness and detachment in which its studies flourish.

There remains a third conception of the place of the University in national life. It is that the University should set, or at any rate maintain, the standards of national culture, and should accordingly provide instruction and guidance, both at the undergraduate and the graduate stages (and not least at the graduate), in the main elements of that culture. This is everywhere and at all times a duty of universities. But it is a duty which becomes complicated and difficult

when subjects of the European tradition are being studied and taught—possibly by European methods and even in a European language—among a body of students who are imbued, from their birth, with the tradition of a different and it may be an older civilization. Here there is a mixture which creates a tension and strain, and this tension and strain is most obvious in the universities of Asia. But even in the universities of new colonial countries there may be something of a similar character. The tradition of the old University is imported into a new society, with a new outlook, which has to confront new problems. What was good for Europe is not necessarily good for such a society, and may have to be modified in such a society.

The story which is told in this volume is the story of the impact of the western or European University on societies which are either new or engaged in a process of transformation; and it is, therefore, also a story of the modifications and adaptations which the idea of the University has undergone in the course of the impact. But the European University is itself various; and various patterns of the University have been presented to the countries which have sought guidance from Europe or found it in Europe. There is, for example, the Scottish type, which has travelled as far as the travelling Scotsman himself—all over the globe. Perhaps the vogue of this pattern has been as much due to the emigration, and the efficiency, of Scottish teachers, as to the attraction of the organization and the methods of the universities from which they came. Again, the American University, itself influenced by the example of Scottish universities, has become an example in turn; and this example has been followed in some of the universities both of the Far and the Near East. German example has also been active, particularly in the nineteenth century, and especially in the field of graduate instruction and general research. France, with her

own peculiar and intimate university system, has been less influential; nor have the universities of England—with the great exception of the University of London, since its foundation a century ago—exerted any great attraction. Perhaps the peculiarities of the two old English universities (and especially their collegiate system and their tutorial method of individual instruction) have made their organization and their teaching difficult to adopt or even to adapt. But though they have been late in exerting any influence, it may be said that they have at last begun to act. In some of the universities of the eastern side of the United States the collegiate system and the tutorial method are now being followed. It may be that the influence of Oxford and Cambridge, though it has been late in being felt, will ultimately be felt all the more deeply. The peculiarities of the old English universities are closely connected with that great function of the University which consists in maintaining and helping to set the standards of national culture.

However various the influences may have been (and there may be said to be safety in a multitude of influences, as well as in a multitude of counsellors) the question still remains whether the influence of European patterns, and imitation of European patterns, can remain as permanent factors in the development of overseas universities. Each country naturally aspires to spiritual independence; each country naturally desires a spiritual 'autarky': each wishes its university system to be its own native growth, expressive of its own native genius. But the fact remains that the tradition of scientific, historic and general truth which has been built, or at any rate treasured and handed down, in the European universities is a tradition of universal validity, which knows no boundaries and no differences of countries. In such matters of the mind there is no latitude and no longitude. The fact also remains that the methods of universities, like the

substance of their studies and teaching, have a general and universal application. Good teaching is the same everywhere. There may be variations of detail; but the essence remains a constant.

Yet we cannot forget the other fact, which also remains, that in countries of an old civilization the university of the western type, which teaches the culture of the West, may sit uneasily amidst their old traditions and their ancient culture. This is one of the great problems of a country such as India. It is also one of the great opportunities of such a country. It is an opportunity for a marriage of minds; and whatever its difficulties, such a marriage may produce a noble issue. For the time being, it would seem that the common use of the curricula and the language of the West in the universities of India forms a bond of Indian cohesion, and that the importation of the scientific method and the scientific results of the West adds a new element to Indian thought. But that is not the whole or the end of the matter. India has her own treasures—her own spiritual treasures. They must be incorporated into her universities. If she can unite the treasures she possesses with the tradition which she is receiving, the union may mark a new epoch not only in the history of universities, but also in the history of human culture.

The mention of India suggests to the mind—what is also suggested by the universities of other lands, in Africa as well as in Asia—a large and important question. How far is the University the conservator of culture, and how far is it the spearhead of change? In Europe we tend mainly to think of the mission of the University as consisting in the conservation of culture. In other parts of the world it may well be its main duty, for many years to come, to act as the spearhead of change. It has to produce a new *élite* which comes from the native soil. That may turn, and is likely to

turn, the attention of the University towards the production of professional skill and the provision of political training and aptitude. There is no one function of a university. Each university has several functions; and the emphasis which it lays on the one or the other will differ with the time and place. At the present time, in many places, the function of being the spearhead of change may be the main function of universities. They may be called upon, not so much to be instruments of general education (according to the old medieval idea of the *studium generale*), as to be the providers of professional skill and the nursing-mothers of a new *élite* which will serve in politics as well as the professions.

No doubt there are perils in this course. The universities which follow it may fall into some degree of materialism, and they may fear, not without reason, that they are encouraging 'careerism' and the spirit of self-advancement. They may also fall under the domination of some political colour, and they may fear, again not altogether without reason, that they are encouraging partiality and even passion rather than the pure pursuit of truth. They are risks which have to be run if the University is to be a living part of a living society, responsive to its needs. If it is true that the substance of truth which a university carries is universal, and that the methods of teaching that substance have everywhere a fundamental similarity, it is also true that the substance of truth must necessarily live, and that the teaching must be received and find its home in the mind. And if the truth is to live, and the teaching is to bear fruit, they must both be accommodated to the society in which they have to operate. It seems dangerous to speak of the accommodation of truth to anything but itself, or of the accommodation of teaching to anything but truth. But it would also be dangerous to think, or to speak, of pursuing truth without reference to the particular need of truth which a particular society, at

a particular stage of its development, especially and acutely feels.

With these preliminary words I would sincerely commend this volume to the reader. I know something of the infinite pains which its Editor has taken. I know the titles and qualifications of some of the contributors whom he has enlisted. I have here just grounds for my commendation. And I would add to them this other ground—that in the chapters of this volume the reader will learn to know the efforts which the nations of the other continents are making, through their universities, to make their part of the world a better, because a wiser, place.

ERNEST BARKER.

July 1939.

Introduction: the University Outside Europe

EDWARD BRADBY

THE plan of this volume has a historical and also a logical reason. Historically, it was the warm welcome given to the volume of essays entitled *The University in a Changing World*¹ which gave International Student Service the idea of compiling a second collection, to treat some of the countries not included in the first volume, which had concerned itself largely with the European countries. Logically, it was felt that there would be many common threads which might usefully be traced in the development of university institutions in the non-European countries. For however diverse may be the university systems of the fourteen countries treated in this volume, they are unified by the fact that they developed at a single period of history and show attempts to solve similar problems in widely differing environments.

The period may be roughly defined as the last 150 years.² Starting from the days when universities were planted as sanctuaries of freedom in a new land or formed part of a deliberate effort to transplant the culture of a mother-

¹ *The University in a Changing World*, edited by Walter M. Kotschnig and Elined Prys, Oxford University Press, 1932.

² Some American universities and the University of al-Azhar are, of course, older than this; but in these cases too it is with the developments of the nineteenth century and after that our authors are chiefly concerned.

country to colonial soil, we shall traverse the great period of the expansion of western ideas and institutions in the nineteenth century, and finally observe the eager absorption of western culture by those States whose birth or renaissance has occurred in the years succeeding the Great War of 1914-18. The similarity of problems lies in the fact that during this period the introduction of university institutions was in almost every case part of an attempt to adapt western ideas of higher learning, as they had been developed in Europe, and especially in the Middle Ages, to the demands of societies which were either entirely new or else undergoing a radical transformation. The book is therefore essentially a series of studies on the part played by higher education in the life of rapidly developing communities, and should be read rather as a sociological study than as an attempt to give encyclopaedic information about the university systems of the different countries.

While not professing to be exhaustive, the selection of countries will, we believe, give a substantially complete picture of the development of the University outside Europe, with one important exception: Latin America. The University in Latin America did indeed figure in our original outline; that it does not appear in the final product is due partly to the great difficulty of finding the right contributor to treat such a vast field within the limits of the space available, and partly to the thought that it might after all be better to reserve the Latin American countries for fuller treatment in a third volume, together with the University in Spain and Portugal, countries which were omitted owing to lack of space from *The University in a Changing World*.

The object of this introductory chapter is twofold: firstly, it will attempt to indicate some of the points of comparison which might usefully be borne in mind when the reader

embarks on his voyage round the world. These will be considered under two headings: (1) origins and aims; (2) formative influences. Secondly, it will refer to some of the effects of the impact of western university ideas on the different types of country under review and some of the problems which that impact has caused. We can do no more than hint at possible lines of solution for some of these problems, and in others content ourselves with simply stating them. But even that is, we believe, important. One of the results of the swift and independent growth of the University in many countries of the world is that little attempt has been made to preserve a synoptic view of developments which are capable of throwing much light on each other.

ORIGINS AND AIMS

If we look first of all at the origins of the University in the countries under review, and the aims which inspired the establishment of higher education in each case, we can distinguish two predominant influences, which may be roughly described as the religious and the technical. For example, the first universities in the United States were, as Dr. Cowley points out, religious institutions, designed above all to train up candidates for the ministry of Christian sects which had been forced to abandon their mother-country and start life in the New World. At the beginning of the nineteenth century Anglican loyalists seceding from the American Union in their turn established religious colleges in Canada. In our own days a striking parallel has been provided by the foundation of the Hebrew University of Jerusalem, which, as Professor Bentwich shows, has been the symbol and rallying-point of Jewish cultural aspirations and has, in later years, given asylum to thousands of scholars whose creed was held to shut them

out from the privileges of higher education in their native countries.

Mingling with the religious aim, as the case of the Hebrew University clearly shows, we find the desire to train technicians and other experts for the development of the resources of a country. This aim is still more evident in the cases of China, Japan, the Netherlands East Indies (where it was hastened by the special circumstances of the Great War), South Africa, Turkey, and Iran: in these countries the 'technical' motive is so prominent that it eclipses all others.

Our use of the word 'technical' in this context must not be taken to imply exclusion of professional training; what we are at pains to show is how, in strong contrast with the typical development of the University in Europe in the Middle Ages, the University outside Europe was regarded as a means and not as an end. The European University grew up as a research institution, devoted to the furtherance of true learning; it was only at a later stage that universities started to combine teaching with research as part of their regular function. In almost all the countries with which this volume deals, however, the process was exactly reversed: ¹ the University started as a teaching-school to provide the country with its technicians and professional men, and only later branched out into research, the value of which often received but a grudging and inadequate recognition from the practical, pioneering type of man who usually held the purse-strings. Dr. Cowley's account of the development of Johns Hopkins University and other similar institutions in the United States is most revealing in this connection.

Even at a later stage, when the needs of the country have grown broader and more complex, we shall find that a conception of the aim of university education persists which may not unfairly be classed as utilitarian. A persuasive

¹ The Hebrew University at Jerusalem is a notable exception.

statement of it is given in the report of the South African Committee of Enquiry of 1933, the Chairman of which was our contributor, Sir John Adamson;¹ it suggests that there are four main functions of higher education: (1) To be a 'Reserve Bank in which the accumulated content of culture is held in safe keeping and from which it is distributed'. The report adds: 'It is as necessary for national welfare to develop and conserve culture as to develop and conserve mineral and other material assets.' (2) 'To promote the economic welfare of the nation' by training 'its future experts in agriculture, mining, other industrial activities, and commerce', and also through research in these fields. (3) 'The training of professional men and the future leaders of our social and political life.' (4) To make 'a contribution to a sane and tolerant nationality' by opposing the centrifugal forces at work in the country.

FORMATIVE INFLUENCES

If we turn from the origins of the universities to consider the influences which have shaped their later development, we strike the most obvious unifying element in the whole collection of essays. For, with one exception, the influences which we have to consider are exclusively 'western': that is to say, they are part of the cultural heritage of Europe and North America. The great exception is the University of al-Azhar in Cairo, and it is in the true sense of the words an exception which proves the rule: for although al-Azhar has remained faithful to its own medieval traditions and made only the minimum of concessions to modern western science and secular tendencies, yet through that very faith-

¹ *Report of the Committee of Enquiry into Subsidies to Universities, University Colleges, and Technical Colleges, 1933*, (J. E. Adamson, Chairman), Union of South Africa, Education Department, 1934, pp. 4-5.

fulness it has been thrown back on itself, and has been without substantial influence on the development of the University in other countries of the Near East or the Moslem world. Al-Azhar is in fact still, as it was forty years ago when Lord Bryce wrote his famous description of it,¹ a unique survival into modern times of the mediæval university—with all its simplicity of educational arrangements (every graduate may be a teacher), slender funds, freedom for the student to study when, where, and as much as he likes, narrow curriculum, and emphasis on memorizing and dialectical ingenuity. As such it provides a fascinating study for the sociologist, but it is impossible not to feel that it stands outside the main development of university institutions with which we are here concerned.

Among western influences we shall, however, find a considerable variety at play. First in chronological order comes the British influence. Here it is worth noting that it is not the old residential universities of Oxford and Cambridge which have had the greatest influence on the building up of universities in the wider English-speaking world, but the Scottish universities, with their sturdy non-residential and utilitarian traditions. Of English universities the most influential have without doubt been the University of London, whose characteristic 'affiliating' form, since discarded, had such disastrous results on the university systems of India and New Zealand, and the modern universities, such as Liverpool and Manchester, with their conscious exclusion of religious ties and their concentration on the natural sciences.² The reasons for this state of things are not far to seek: not only were the economic, social, and

¹ Bryce, *Studies in History and Jurisprudence*, chapter xiii, 'The relations of law and religion.'

² For a full account of these influences see A. P. Newton, *The Universities and Educational Systems of the Empire*, Collins, 1924, chapters ii and iii.

cultural conditions of the Scottish and 'modern' English universities in many ways similar to those of America and the Dominions, but also it must be admitted that Oxford and Cambridge were barely recovering from their 'dogmatic slumbers' at the period when the overseas universities were most in need of models and men. The most recent experiment in university education in the dependent Empire, Makerere College in Uganda, would seem, however, to show a reversion to the influences of Oxford and Cambridge, with its residential life, its quadrangular plan, and even its social unit of the 'staircase', as well as in its choice of a distinguished son of Oxford for its first principal. Is it fanciful to claim that the older universities have been fertilized anew by the tide which has set back (in the form of scholars, teachers, and benefactors) from those overseas universities in whose establishment they were so little interested?

Secondly, we shall find American influences very strongly marked, especially in the later nineteenth and in the twentieth century. The most remarkable expression of this is in China, where American money and men have been poured into higher education, both missionary and otherwise, in a manner which must be without parallel in history. Nor has the flow been in one direction only: the former American Secretary of State, Henry L. Stimson, has pointed out the influence of the movement by which China has sent some of its most promising young men and women to be educated in the universities and colleges of the United States, many of whom are now in leading positions.¹ The American influence has also been strongly felt in Japan, as Professor Munakata remarks. That it has been powerful in Canada goes without saying, but Dr. Wallace has some helpful indications of where that influence may be traced,

¹ Henry L. Stimson, *The Far Eastern Crisis*, p. 154.

and both he and Professor Portus for Australia are agreed about the part played by the state universities of the American Middle West in influencing development in their respective countries. Finally, the American University at Beirut in Syria provides a particularly clear-cut picture of the missionary zeal (using the phrase in its widest sense) which is one of the most significant and encouraging features of the modern university in the United States. Will the American plant strike permanent roots in the widely different soils of China and the Levant? That is a fascinating question, but one which it must be left to future generations to answer.

Less widely recognized, but also of cardinal importance, is the influence of the German University of the nineteenth century. Dr. Cowley gives a full and penetrating survey of the profound effects of that influence, and we can also catch a glimpse of it in the growth of the Japanese University. Dr. Cowley shows clearly the channel through which the German influence was principally derived in the last century: it was through the visits of American scholars, who, attracted by the new movements in German education at the time, went over and studied in Germany, and afterwards returned to teach in American universities. This method of cultural exchange, to which we have already had occasion to refer in speaking of the American influence in China, is one of the most important in its ultimate results, and one which is also prominent in the modern German University. But it is one which can only be assessed after a lapse of years. For example, it is certain that in the last twenty years conscious efforts on a large scale have been made to attract Chinese, Japanese, Indian, and other oriental students to Germany. The effects of these returned students on their own countries cannot but be important: but only time can show the extent and direction of such influences. Another

kind of German influence, however, which is also prominent in these days, is more easy to estimate contemporaneously, namely that exerted by the flow of refugee scholars. One of the first measures of the National Socialist movement in Germany upon assuming power in 1933 was to conduct a thorough-going purge of the German universities with the double motive of reducing numbers, and so alleviating graduate unemployment, and of eliminating the racial and political elements which were considered as having no place under the new regime. It is not our business here to pass any judgment on the effect of these measures on the German University. But what is beyond doubt is the beneficial effect which they have had on the universities of other lands. The universities of many countries, and notably of England and the United States, have received an influx of German-born teachers, research workers, and students, which, though not important numerically when compared with mass movements like that of the White Russians after the Russian revolution, is of incalculable importance because of the quality of the men. For example, the latest report (1937-8) of the Society for the Protection of Science and Learning shows that, taking teachers and research workers alone, 161 have been placed through the Society's efforts in the United States, 128 in Great Britain, and 45 in Turkey, while 34 other countries have also received refugee scholars. It must further be borne in mind that many more will have found opportunities without the Society's aid. Among these exiles who will now devote their intellects to the service of their countries of adoption are many of what outside Germany are considered the best brains of the century—men like Albert Einstein, Heinrich Brüning, James Rauch, Paul Tillich, or W. Gropius, to quote only five of the many now on the faculties of American universities. The picture may be completed by considering

the effect of the students who have been helped by International Student Service to continue their studies interrupted in Germany. Since 1933, over 4,000 have been helped in one way or another, over 800 with scholarships and grants; hundreds more have found opportunities by their own efforts. True, only the most brilliant of these young men and women have been able to devote themselves to academic work, but just because of that inevitable selection their qualitative importance is very great: there may well be some future Einsteins among them.

The French influence will be somewhat less noticeable in the present collection of essays. It has, however, played an important part in Egypt, Iran, and Syria. One particularly interesting feature is the arrangement whereby a foreign university is directly linked up with one in France, as for example the St. Joseph University at Beirut with the University of Lyon. A quite different kind of influence is that which France has had on the French-speaking universities of Canada. In this case perhaps the most remarkable thing, when once one has grasped the fact that Canada is as essentially a country of two languages and cultures as, for example, Belgium, is that there is so little contact between the universities of France and those of French-speaking Canada. The reason for this is bound up in the whole story of Canada's cultural history; it may be hinted at briefly by remarking that whereas the French University as it emerged from the nineteenth century was, and remains, predominantly secular and republican, the universities of French Canada have retained to the full their Catholic affiliations and traditions. It should be noticed, however, that the establishment of the Cité universitaire in Paris, with its *maison canadienne*, is bringing considerable and increasing numbers of French-Canadian students to Paris, and this may in turn have its repercussions on Canadian life.

Such are the main streams of western influence to which frequent reference will be found in the following pages. There remains one other influence which deserves special mention because of its possible significance for the future. It is the influence of the international commission of educational experts which was sent out in 1931 by the League of Nations, at the request of the Chinese Government, to advise on the reorganization of education in China. The passages in the report which deal with university education, and to which Professor Chang refers more than once in his essay, have not only become the classical statement of the problems of Chinese universities, but have already profoundly influenced the development of them. Here, then, is a clear example, perhaps for the first time in history, of a conscious and deliberate application of *international* influence to the problems of a nation's universities.

EFFECTS OF THE IMPACT OF WESTERN UNIVERSITY IDEAS

In considering the effects of the impact of these various types of western influence on the universities outside Europe, it will be well to distinguish clearly the two different types of country with which this volume deals. On the one hand there are what might be called the countries of new settlement—those which have been settled by Europeans in the last three centuries and where the newcomers found either no inhabitants or a people of such primitive culture that there was no question of a fusion of the old with the new, but only of segregation or suppression. In this group of countries are included the United States and the British Dominions. On the other hand there is the group of countries which have a centuries-old culture of their own, and where the newly arrived western ideas and influences have impinged upon deep-rooted traditions and ways of thinking, as for example

in India, China, Japan, and the successor-States of the Moslem Empire. In this group, too, must be included countries such as the Netherlands East Indies and the colonial areas of Africa, where the culture, though more primitive, is none the less deep-rooted and ancient, and hence cannot be ignored or suppressed.

The Impact on New Countries

The problems of the University in the countries of new settlement are problems of adapting the institutions of old, complex, and geographically concentrated countries to new, simple, and vast regions of sparsely settled continent. One typical result is a multiplication of universities on a scale that seems prodigal in relation to the population of the countries. Thus we find that Canada, with a population of eleven millions, has a score of universities, exclusive of affiliating organizations; and South Africa, with a white population of two millions, has a total of nine universities and university colleges and eight technical colleges. There are good reasons for this state of affairs, one of the most important being geographical—the great distances between the centres of population. This has led to various attempts to include within the scope of the University non-residential students. In Australia we shall see that this has become an important issue, and Dr. Wallace shows that the Canadian universities, while alive to the possibilities of extra-mural work, have firmly resolved nevertheless to keep a certain minimum of residential qualifications, without which the essential spirit of the University might be lost.

But it is not only in their number of institutions but also in their high proportion of students to population that the universities in the new countries are remarkable, as the following table shows.

Table I.—Proportion of Inhabitants to Students in certain Countries.

<i>Country.</i>	<i>Inhabitants in 000's.</i>	<i>Students.</i>	<i>Number of inhabitants per student.</i>
South Africa . .	2,000*	8,400	238
U.S.A.	122,800	990,000†	124†
		450,000‡	273‡
Canada	11,000	48,500†	227†
		33,000‡	333‡
New Zealand . .	1,500*	4,500	333
Scotland . . .	4,843	10,250	473
France	41,907	81,000	517
Hungary . . .	8,991	15,600	576
Australia . . .	6,700*	10,300	650
Sweden	6,285	9,100	690
Wales	2,593	3,500	741
Great Britain §	44,795	50,600	885
England	37,360	36,900	1,013

* White population only

† All students.

‡ Estimated number of strictly university standard.

§ i.e. England, Scotland, and Wales.

Sources of student figures.—U.S.A.: Kotschnig, *Unemployment in the Learned Professions*; British Dominions: our Authors; Great Britain: *University Grants Committee Report*, 1935; European countries: *The Year Book of Education*, 1939.

It will be noticed that all the British Dominions have fewer inhabitants per student than Great Britain as a whole, and that the U.S.A. and three of the Dominions have figures considerably surpassing that even of Scotland, which is

famous for the advanced organization and easy access of its universities. The comparison is even more striking if we realize that in Scotland roughly 45 per cent. of the students receive financial help in the form of scholarships and the like,¹ whereas Dr. Wallace estimates that only one Canadian student in twenty receives such assistance. Owing to differences in the definition of students for statistical purposes the figures are not always exactly comparable and should not be interpreted too rigidly. But they bear out our general contention, that 'new' countries tend to have a higher proportion of students to population than 'old' countries, a conclusion which would seem paradoxical if we had not before our minds the description of the functions of higher education given by the Adamson Report, to which reference has already been made.

Another result of the geographical conditions of the countries of new settlement is the difficulty of intercourse between one university and another. Anyone who has worked in, or even travelled through, the long-drawn-out string of Canadian universities, which stretches from the maritime provinces right to the Pacific coast, will be aware of the difficulties of organizing what in European countries, and particularly in Germany, has always been regarded as a matter of course, the free and frequent movement of students from one university to another and the organization of common enterprises for the benefit of student life. Though, as Dr. Wallace is careful to point out, Canadian students have progressed far along the road to 'world-consciousness', yet this has needed long and sustained efforts, notably by the Student Christian Movement of Canada, which is the one really effective nation-wide student organization able to support a regular staff of travel-

¹ *vide* University Grants Committee, *Report for the Period 1929-30 to 1934-35*, p. 55.

ling secretaries and overcome the financial difficulties involved in organizing national conferences over such a huge area.¹ If we have dwelt on the position in Canada, it is only because it is the most extreme and apparent case. The same difficulties are felt to some extent in all the Dominions, and in some regions of the United States.

A further effect of the general position of the University in the societies of which we are speaking deserves special attention, although it is less easy to isolate, namely the tendency towards specialization at the expense of general education. It is a natural consequence of the utilitarian conception of the University to which reference has been made above. It is examined most fully in the chapter on Australia, but the problem is also touched upon in those on Canada, South Africa, and the United States. It is a problem which is not confined to these countries, and we shall return to it later.

One other effect is to be found in all the countries of this group, namely the tendency to increased State provision, and therefore control, of higher education. In a young and developing community the State tends to be the only body rich enough and stable enough to undertake the burden of higher education. The rise of the great State universities in the United States and Canada, and the history of financial control of the University in Australia, New Zealand, and South Africa, are fascinating chapters in the history of State control of education. Particularly worthy of notice is the solution of the problem of finance which has been arrived at in South Africa, whereby the central subsidies are made to some extent dependent on local revenue—a healthy precaution against undue centralization.

¹ There exists, it is true, a National Federation of Canadian University Students, but it is severely handicapped by the limitations indicated above.

The Impact on Old Countries

Very different are the effects of the impact of western university ideas on the countries of old settlement. The complex processes of adjustment and adaptation have been well analysed by Professor Chang in his chapter on the Chinese University, who points out the inadequacy of the question-begging cliché about accepting what is good in other cultures and retaining what is good in one's own. The problem is an acute one at the present time in various parts of the world, especially the dependent territories of Africa. It can be seen most clearly in the history of university education in India, the stages of which are summarized by Dr. Ghosh. What perhaps makes the Indian experiment the more interesting and valuable is the fact that it was undertaken consciously after discussions which had raged for nearly half a century. The particular issue round which the controversy crystallized was whether education should be given through the medium of the vernaculars or that of English. In 1792 the Directors of the East India Company had reported that 'the Hindus had as good a system of faith and morals as most people, and it would be madness to attempt their conversion or give them any more learning or any other description of learning than that which they already possessed.'¹ The path between that somewhat patriarchal declaration and the specious phrases of the Macaulay Minute, which finally led to the adoption of English as the language of instruction, is paved with good intentions. In particular, as Mr. Arthur Mayhew has pointed out,² enlightened Indian opinion of the time, unlike that of to-day, was in favour of westernization, as a reaction against the abuses of Indian civilization of the day. But the development

¹ Quoted by H. G. Rawlinson, 'The Cultural Background of Indian Education', *The Year Book of Education*, 1937, p. 463.

² Arthur Mayhew, *The Education of India*, esp. p. 16.

was none the less unfortunate, since it tended to supplant what was valuable in the indigenous cultures of India and replace it by an education which was artificial, ill-adapted to India's social and economic needs, and associated with the imposition of an alien culture. It is therefore encouraging to find that the lessons of India are being put to good effect in East Africa to-day. However different the problems may be (the most evident difference being that to which we have already referred, between peoples of age-long culture and peoples of primitive development), yet in certain respects they are the same, notably in the practical and psychological effects of conducting at least the earlier stages of education in the vernacular, in the dangers of an artificial and top-heavy westernized education, and in the need for controlling the speed at which westernization proceeds. Thus it is interesting to note that the recent pronouncements of the British Government's education policy for the African dependencies emphasize the desirability of conducting the first years of a child's education entirely in the vernaculars.¹ They are no less alive to other lessons of Indian university development. For instance, they are determined that the whole educational ladder shall not be overweighted by the needs of the comparatively few who are fitted for higher education, and therefore that due provision shall be made for elementary and secondary education adapted to local conditions and complete in itself.² In this matter the French colonial policy in West Africa is even more explicit: '*instruire la masse et dégager*

¹ See, for example, the Memorandum of the Advisory Committee on Native Education in Tropical Africa, entitled *The Place of the Vernacular in Native Education* (African 1110, 1927). Cp. also Lord Hailey, *An African Survey*, p. 1230; H. S. Scott, 'Educational Policy in the British Colonial Empire', in *The Year Book of Education*, 1937, pp. 411 ff.

² See, especially, Advisory Committee on Education in the Colonies, *Memorandum on the Education of African Communities* (Colonial 103, 1935), paragraph 10.

l'élite,¹ that is to say, to give a good elementary education which is complete in itself, and to restrict secondary and higher education to a small number, selected by competition, and related in number to the estimated employment-needs. We may also refer to the interesting remarks which Professor Schrieke makes concerning similar problems in the Netherlands East Indies. East Africa, again, provides an important experiment designed to avoid that other scourge of the Indian University, the over-production of graduates in certain professions, to which Dr. Ghosh makes reference. The Commission appointed by the Secretary of State for the Colonies in 1937 to enquire into the question of higher education in East Africa, the outcome of whose recommendations is seen in the establishment of the new East African University College at Makerere, conducted quite an elaborate and thorough survey of the estimated needs for trained Africans during the next ten years in Uganda, Kenya, Tanganyika, and Zanzibar, together with their inter-territorial services, and the results are tabulated in the Commission's report. Their conclusion was that 'in view of the growing needs of government departments, private employers, and native authorities, there is no immediate danger of creating a class of educated unemployed.'²

The countries treated in this volume offer examples of various speeds in the absorption of western educational ideas. There is the unique example of Japan, which for over two centuries (from 1636 to 1867) deliberately shut herself off from all western contacts, even to the extent of closing her harbours to western shipping. The result has been an extraordinarily rapid process of westernization as soon as the floodgates were opened. It may be questioned

¹ Governor-General Carde, quoted by Lord Hailey, *op. cit.*, p. 1263. The whole passage is of great interest.

² *Higher Education in East Africa* (Colonial No. 142, 1937), pp. 16 ff.

whether this rapid importation of western ideas is not responsible for creating or at least aggravating some of the problems to which Professor Munakata refers, and also that of graduate unemployment, which by 1936 had reached such serious proportions that the Government decided to make important cuts in the number and size of the universities.¹ What deliberate policy did for Japan, geographical position did for China. The rise of the westernized University in China has been even more rapid, as a glance at the statistics quoted by Professor Chang will show, and it has brought with it some acute problems, notably those of the maintenance of standards and the creation of an adequate teaching staff. But in neither China nor Japan does it appear that the western university idea has met with any serious resistance from the ancient culture of the countries (though it may be that latent elements of conflict have not yet had time to show themselves).

In the countries of the Near East, on the other hand, a clear conflict is visible between the ideas imported from the West and the traditional Moslem culture. Thus Mr. Erim has no hesitation in regarding Kamal Atatürk's deliberate encouragement of things western as a victory over the forces of obscurantism and reaction. Professor Gibb, writing with the experience of Egypt and Syria in his mind, is more cautious as to the wisdom of a radical break with the past, and particularly concerned for the preservation of the Arabic language. Iran, with its emphatic retention of Moslem theology as a bridge between the old learning and the new, would seem to stand half-way between the two extremes of al-Azhar and Ankara. Without in the least wishing to belittle the great strides which higher education has made in Iran and Turkey in recent years, it is yet legitimate to ask whether

¹ A. F. Thomas, 'Recent Developments in Japan's National Education', *The Year Book of Education*, 1937, pp. 602 ff.

the grafting of such thoroughgoing modernism on to some of civilization's oldest trees will not create problems in the future of the same type (however different the actual circumstances) as those faced by China and India. It is perhaps healthy that, for all its meteoric rise, the Turkish university still caters only for a comparatively small *élite*.¹ For whether we believe that industrialization is inevitable in all parts of the world, and that therefore western methods must needs become universal, or whether we think that the spread of western ideas was essentially a concomitant of the nineteenth century, and that the process of cultural and economic exchanges will be much more complex and varied in the future, we shall probably be agreed that some sort of control of the process of absorption is advisable; we have seen too much of the evil effects of a policy of pure *laissez-faire*.

Some General Problems

Finally, we shall consider briefly two great problems which apply to all the countries in the book, cutting across the division into countries of old and new settlement on which we have hitherto been proceeding. In fact they are common to universities all over the world, though the countries which we are considering show them in particularly clear forms.

First and foremost, there is the problem of the function of the University. Should it be regarded as a force for preservation of culture or as the spearhead of social change? Lord Hailey, in his *African Survey*,² expresses the distinction well: 'The problem of native education is peculiar because

¹ The total number of students in universities and higher technical institutes for 1935-6 was 8,215, a proportion of 5·1 per 10,000 of the population, whereas the corresponding figure for France was 19·3, for Bulgaria 15·6, for Yugoslavia 10·0, and so on. See *The Year Book of Education*, 1939, p. 96.

² p. 1207.

the circumstances of an undeveloped race are fundamentally different from those of a homogeneous and relatively static modern community. In such a community, the chief function of education is to maintain the continuity of culture by transmitting to successive generations not only accumulated knowledge but acquired standards of value and conduct; in Africa education is, and is intended to be, an instrument of change.' Just because none of the communities described in this volume are completely homogeneous or even relatively static, the two conceptions described in this passage will constantly be found at war in them, whether consciously or unconsciously.

Two other contrasting views about the function of the University have already been referred to in the preceding pages: the first is, whether the University is to be regarded as a means or as an end; and the second, which is perhaps only another aspect of the same problem, is the question whether the emphasis of university education should be primarily on general or on professional and technical education. In both the groups of countries to which we have referred, the answer has been in favour of the professional and technical education which the rapid development or westernization of the country in question seemed to demand. But it may be asked whether this answer will persist when the countries become elderly and when their emphasis is less on growth and adaptation and more on preservation. The shift in emphasis has already become apparent in many ways in the United States, which offers a picture of a country at several different stages of social development. But even in the youngest communities it may be doubted whether the emphasis should be allowed to be all on one side. What Mr. Arthur Mayhew has written in a recent book on the subject of African education is capable of more general application:

'If Africa is to avoid in the process of growth the growing pains that have distressed India and are bringing distress elsewhere in the East, its universities and university colleges have an important part to play in the formation of public opinion and in the production of citizens with a capacity for intelligent criticism, able to discern what is true and false in the propaganda to which they will be exposed and the essential features of public questions that arise. We shall not get this kind of citizenship merely by increasing the number of specialised workers. Public opinion is not formed by the impact of engineer on doctor or of agricultural expert on lawyer, but by discussion between men and women who have some measure of liberal education. . . .'¹

A second great problem is whether the universities can justify their name, with its implication of an all-embracing unity of learning. It is true that the word *universitas* in its origin meant nothing more than a corporation; but it very soon came to have a much wider and deeper significance: materially speaking, it represented a network of institutions of higher learning with more or less equivalent standards, with a common language—Latin—and with freedom of movement for students and teachers between them; and spiritually speaking, it stood for the underlying unity of principle which was felt to animate and correlate all the many branches of knowledge. Dr. Kotschnig, in the introduction to the first volume in this series,² has sketched some of the attempts of modern European universities to recover that lost spiritual unity. There are many indications in the pages of the present volume that the lack of this unity is equally deeply felt by those who are alive to the problems of the University in non-European countries. We shall find it in two particular forms, corresponding to two of the main

¹ Arthur Mayhew, *Education in the Colonial Empire*, pp. 181-2. See also the report of a conference organized by International Student Service in 1938, entitled *Bildung und Ausbildung des Studenten*.

² *Op. cit.*, pp. 13 ff.

political problems of the present day. The first is the disunity between the universities of countries dominated by radically different philosophies of life. While there are no examples in this volume of completely totalitarian countries, yet the difference between the function of the University in a country such as Turkey or Japan and that in, say, the United States is evidently so great as to make one wonder whether the whole trend of the coming years will not be towards greater separation rather than greater unity.

The second form of disunity is that in the relations between imperial powers and dependent peoples. Higher education is generally—and rightly—regarded by subject-peoples as a key position in their struggle for freedom, and it is understandable, if regrettable, that in some cases the first result of giving higher education to such peoples has been an embittering of relations and an increase of agitation. The result is that often the metropolitan power is torn between two forces: on the one hand, its fear of fanning the flames of rampant nationalism; and on the other, its desire for trained technicians to develop the country's resources and—let us in fairness add—the genuine desire on the part of a section of public opinion to educate the subject peoples to self-government. We have already shown that there is reason to believe that the lessons of the past in India are being intelligently applied in Africa, and Professor Schrieke makes it clear that this is also true of the Netherlands East Indies. But it will need great patience and foresight on both sides if the University in dependent countries is to develop into an element of enlightened progress and reconciliation and not become a mere bone of contention.

In considering the countries of old civilization we remarked on the danger of too swift adoption of western ideas, and hence the need for some control of the speed of adoption. In the case of dependent communities the danger seems to

lie largely in the other direction: control may come to mean conservatism and the denial to subject peoples of the elementary rights to improve their economic and social position. The matter has been thrashed out during the last century in the case of the negro population of the United States. An outside observer may be tempted to ask whether the same problem is not looming ahead for the Government of the Union of South Africa. It is with a certain feeling of shock that he turns from contemplation of the liberal provision of universities for the white population of South Africa to the statistics of the provision of higher education for the South African Bantu, given for example in the Adamson report¹ or in Lord Hailey's *African Survey*.² We find, for instance, that for a native population of some seven millions, there is only one native college, the Fort Hare College, and that between its inception in 1916 and the year 1934 only 570 students had passed through it, of whom 139 had become teachers and 106 ministers of religion. It is true that more recently the college has been enabled to open classes in agriculture and is the centre of a scheme for training native medical aids; nor would we wish to underestimate the peculiarities and great difficulties of the native problem in South Africa. But it is nevertheless legitimate to hope that the remarks made by the Commission on Higher Education in East Africa³ on the necessity to take risks and the possibility of rapid advance may also be taken to heart by those responsible for educational policy in the Union.

On the technical plane unifying elements are not lacking. The post-War years have seen great efforts made in the way of exchange of lecturers and students, promotion of international learned periodicals, equivalence of degrees and

¹ Op. cit., pp. 17 ff.

² Op. cit., pp. 118 ff.

³ pp. 1217 ff.

standards, and so forth. We have already referred to another significant step, the help of an international commission sought by China in reorganizing her educational system in 1931. Looking into the future, another hopeful sign is the increasing emphasis on modern language teaching in the schools. In particular, as an interesting report of the *Bureau International d'Education* shows,¹ there has been a great increase in the extent to which English is taught in secondary schools all over the world. There are in fact only two or three countries possessed of universities where English is not taught in the secondary schools, and it is a compulsory subject in those of over twenty non-English-speaking countries. The report is careful to point out that this situation is due not so much to cultural as to practical and commercial reasons; and the increasing participation of the United States in world affairs is no doubt largely responsible for it. But it may perhaps not be fantastic to look forward to a time when English, through becoming the world's commercial *lingua franca*, comes to serve as a powerful unifying factor between the world's universities. Nevertheless, it may be questioned whether any such technical improvements will help much to get at the root of the evil, which is the lack of any unifying *Weltanschauung*, any code of values which can be accepted in every civilized country as the root of true knowledge and learning in the way that Christianity was accepted in the Middle Ages when the universities as we know them first came into being.

This lack of an overriding unifying force in the international field is one of the most distressing and fundamental phenomena of the present time. At the moment of writing, the political horizon is very dark. At the worst, we may be on the brink of another world-wide catastrophe comparable

¹ Bureau International d'Education, *L'Enseignement des Langues Vivantes*, 1937

to that of 1914-18. At the best, we are in a period of recoil from some of the over-optimistic and superficial views of international collaboration which sprouted up like mushrooms in the nineteen-twenties. There is a natural temptation to give up the effort to seek international solutions of the world's problems. But there are innumerable signs that the interdependence of the nations is increasing all the time, and that it is not the goal of our journey that we have mistaken, but only the scale of our map. At such a time it is of supreme importance that the universities of the world shall not give up their search for unity of principle and practice and their determination to make each country's experience available for the benefit of all. Only if they can keep this aim steadily in view is there any hope that the University will take the lead which its most far-seeing members would have it take, as a force making for unity and progress, not only in the national field, but internationally.

PART I: THE UNITED STATES
OF AMERICA

The University in the United States of America

W. H. COWLEY

THE University in the United States is *sui generis*. Although its models were European institutions of higher learning, its developments have been peculiarly its own. Thus, in the minds of even those Europeans who know the United States, higher education for Americans is a confused patch-work quilt devoid of both design and intelligibility. With this judgment many Americans agree, more particularly those who believe that the United States should establish clear-cut distinctions between the levels of education: elementary, secondary, and higher. These distinctions, however, are blurred, and for reasons which will be obvious in the course of this review.

In the European sense America has no universities. Several hundred of the nearly seventeen hundred institutions of so-called higher education in the United States label themselves universities, but not one of them is a university in the original medieval sense or in the sense that most Europeans understand the university idea. This generalization includes Harvard, Columbia, Johns Hopkins, Chicago, and the other institutions which are in name and in fact great centres of learning. Abraham Flexner, one of the severest of critics of American higher education, describes American universities in these words:

"The term "university" is very loosely used in America; I shall not pause to characterize the absurdities covered by the name. . . . The great American universities are composed of three parts: they are, secondary schools and colleges for boys and girls; graduate and professional schools for advanced students; "service"¹ stations for the general public. The three parts are not distinct: the college is confused with the "service" station and overlaps the graduate school; the graduate school is partly a college, partly a vocational school, and partly an institution of university grade.'²

Whether or not one agrees with Mr. Flexner's point of view, one must admit this to be a fair description of American higher education. The American university is, as has been observed, *sui generis*. Originally patterned after European institutions and periodically influenced strongly by European ideas, its development has been largely conditioned by changes in American society. Like other institutions, American higher education has become what it is because of the impact of social forces. To understand its present status one must look to (1) European influences which have played upon it; (2) world movements which have affected the higher education of all nations; and (3) American social forces which have moulded it to the peculiar American situation.

EUROPEAN INFLUENCES

In very general terms, major influences upon higher education in the United States have come from England, Scotland, France, and Germany. Each of these has had its predominant effect during a particular period in the history of the United States and its educational institutions. Sub-

¹ By this term Mr. Flexner chiefly means extramural instruction, correspondence courses, and adult education.

² *Universities: American, English, German* (1930), p. 45.

ject to the normal limitations of a sweeping generalization the following statement may be made: the English and Scottish influences dominated the Colonial Period (1607-1776), the French imprint was sharpest in the late eighteenth and early nineteenth centuries, the German influence came in during the middle of the nineteenth century and continued dominant until the World War, and since 1918 a return to English practices has in some quarters become apparent.

The Colonial Period: Harvard, the first institution of higher learning within the boundaries of the present United States, began its remarkable history in 1636. About thirty-five of the members of the Massachusetts Bay Colony were graduates of Emmanuel College, Cambridge, and when they established a college in the vicinity of Boston they followed the Emmanuel pattern. Emmanuel had itself been founded but fifty-two years before as 'a Puritan foundation established for the special purpose of providing the Church with a preaching ministry'. Under Puritan auspices Emmanuel had by 1617 become the largest Puritan college in the English universities.¹ The Puritan movement and its collegiate stronghold, however, ran into difficulty under the early Stuarts, whose Arminianism impelled Puritans to seek new homes in the New World. In 1629 a group of Cambridge and East Anglian Puritans came to the conclusion that 'the time had come to establish a new England overseas; and New England must include a new Emmanuel.'²

Against this background Harvard was founded six years after the *Arbella* landed with nine hundred passengers upon the shores of Massachusetts Bay. The colonists had left England chiefly to seek, as the *Mayflower* pilgrims had in

¹ Morison, Samuel E., *Founding of Harvard College* (1935), p. 92.

² *Ibid.*, p. 107.

1620, religious freedom. Other Englishmen, little interested in religious disputes, had migrated to Barbados and Virginia in search of fortunes in the New World, but the New England colonists were impelled to seek new homes chiefly for religious reasons. For the same religious reasons—broadly conceived, however—they founded Harvard.

This brief review of the impulse behind the establishment of the first American college is important, because it illuminates the beginnings of one of the major considerations in an understanding of American higher education. With few exceptions American colleges and universities have been established under religious auspices. To-day, however, the predominant spirit of all levels of education is secular, for reasons which will be explored later in this chapter. To comprehend the development of American higher education, however, one must understand these early religious motivations. Harvard opened her doors as a Puritan college. Eight other colleges followed her during the colonial period: William and Mary (1693) an Anglican college; Yale (1701) a Congregationalist college established primarily as a protest against the religious liberalism creeping into Harvard; Princeton (1746) New Lights Presbyterian; Columbia (1754) essentially Anglican; Brown (1765) Baptist; Rutgers (1766) Dutch Reformed; and Dartmouth (1769) New Lights Congregationalist. Only the University of Pennsylvania, established in 1755, began as a secular institution, but it soon came under the control of the Presbyterians and shifted its religious allegiances until finally it abandoned religious ties entirely.

English influences dominated the colonial colleges, giving them the following characteristics. first, control stood in the hands of religious groups rather than in the State or with the public; second, the English curriculum, transplanted to America and but slightly modified as occasion demanded,

became the standard curriculum of American higher education until the middle of the nineteenth century; third, all early American colleges followed the residential pattern of the English universities and highly valued what Cotton Mather called 'the collegiate way of living', giving emphasis thereby to the philosophy that education involves the whole man rather than his intellectual training alone; fourth, the early colleges accepted from England without question the assumption that higher education is for the aristocracy—the aristocracy of brains if not of purse—and thus restricted the clientele of American higher education until the rise of democratic sentiment in the nineteenth century; fifth, all nine of the colonial colleges, and all¹ that followed until the Civil War, opened as colleges rather than as universities, and remained colleges until the last decades of the nineteenth century, putting their emphasis upon teaching rather than upon the advancement of learning.

English patterns did not, however, monopolize the colonial colleges. Scottish influences played upon both William and Mary College and the University of Pennsylvania. More closely associated with continental institutions than with Oxford and Cambridge, Scottish universities were non-residential, democratic, of slender resources, and in part governed by representatives of the community—a *modus operandi* which helped to prepare the way for boards of trustees. The Scottish universities were not private corporations but national institutions. In the prolonged attempts to found an institution of higher learning in Virginia during the seventeenth century the type and organization of the Scottish university provided an important model. These attempts eventuated in the founding of the College of William and

¹ There are a few exceptions to this generalization: the University of Buffalo, for example, opened before the Civil War as a university and did not add an undergraduate college until 1913

Mary in 1693 under the presidency of James Blair, who had been educated at the University of Edinburgh. Meanwhile, other influences came into William and Mary from Aberdeen which were even more important than those from Edinburgh. Thus 'by the end of the seventeenth century the cornerstone of an American system of higher education based, perhaps unwittingly, upon the Aberdeen model had been laid securely in Virginia. The inclusion of a preparatory department as an integral part of the college was one of its characteristics. A board of lay trustees was another. Last and most far-reaching in its effects has been the development of degree-granting colleges on the one hand and non-resident universities on the other, in both of which the old collegiate way of life (*collegialiter*) has all but disappeared.'¹

In time the Aberdeen pattern came into America directly from Germany (whence Aberdeen had more than likely adopted it) and came to dominate American higher education. Influences from Edinburgh were perhaps even stronger. 'Like most of the State universities (in the United States), it evolved from an arts faculty under State patronage and without any attempts at a residential-college system. It was the resort of the American students who went abroad to study up until the time of the American Revolution.'²

Another Scottish influence during the Colonial Period affected not organization, but ideals. Several heads of colonial colleges and teachers therein received at least a part of their education in Scottish universities.³ William

¹ Cutts, A. B., 'The Educational Influence of Aberdeen in Seventeenth Century Virginia', *William and Mary College Quarterly*, XV (1935), pp. 229-49.

² Maclean, G. E., 'Studies in Higher Education in England and Scotland', *Bureau of Education Bulletin* 1917, No. 16, pp. 49-50, 63.

³ For a long list of Scotsmen who have played a prominent part in American education, see Black, G. F., *Scotland's Mark on America* (1921), pp. 76-80.

Smith, a Scotsman and a graduate of Aberdeen, became the first Provost of the College of Philadelphia, now the University of Pennsylvania. Of the same institution Francis Alison, educated at Glasgow, became the first Vice-Provost.¹ Owing to its Presbyterian origin, the College of New Jersey, now Princeton University, elected in 1768 John Witherspoon, a Scotsman from Edinburgh, as President. Witherspoon served until 1794, was one of the signers of the Declaration of Independence, and did much to extend and liberalize the curriculum of his institution.² Herein lies Witherspoon's great importance in the history of American higher education: he introduced the study of natural realism and rooted out Berkeleyanism from Princeton. He imported natural realism from Scotland and so successfully controverted the idealism of Berkeley and the scepticism of Hume that his point of view continued a predominating force in American thought for over a century. It spread with the Presbyterian Scotch-Irish as they moved west over the Alleghenies, and because of their cultural importance their point of view formed a wedge between Puritan New England and the Anglican south.³ The Scotch-Irish during the early nineteenth century organized many colleges throughout the Middle West and became an important influence in the development of American higher education. Princeton has perhaps more than any other college been 'the mother of colleges'.⁴

Despite the importance of the seedlings which the Scotch planted during the Colonial Period, English influences dominated. The collegiate way of living was everywhere

¹ *Dictionary of American Biography* (1928-37), sub Smith, William, and (1727-1803), sub Alison, Francis.

² *Ibid.*, sub Witherspoon, John.

³ Riley, W., *American Thought from Puritanism to Pragmatism* (1915), pp. 118-35.

⁴ Tewksbury, D. G., *The Founding of American Colleges and Universities Before the Civil War* (1932), p. 92.

standard practice. The British curriculum continued in control. The aristocratic point of view determined student clienteles. Teaching rather than research remained the dominant ideal. Finally, the Church rather than the State kept the upper hand.

The Post-Colonial Period until 1850: After the Revolution, particularly after the beginning of the nineteenth century, hundreds of colleges were established throughout the original thirteen states and especially in the Middle West. Alarmed by the rise of deism and spurred on by its eventual fall, religious leaders set out to save the nation from the corruption of free-thinkers. Thus Christian colleges were established by the hundreds, and although some 450 established between 1820 and 1860 have since died, the importance of religious motivations in the founding of colleges was thus demonstrated. Typical of this educational evangelism was the establishment of Illinois College by a group of religious zealots from Yale who called themselves the Yale Band. In the same state Knox College came into existence, organized by a group of religious men from Hamilton College.

Meanwhile, new educational influences began to be exerted upon the United States from France.¹ Huguenot refugees, seeking religious liberty in the middle colonies, had been a leaven for French culture along the Atlantic seaboard, while French traders and missionaries, penetrating the Ohio and Mississippi valleys, had left a marked French

¹ The following discussion of French influence owes much to Jones, H. M., *America and French Culture* (1927). Other good discussions of some of the phases of it can be found in Adams, H. B., *Thomas Jefferson and the University of Virginia* (1898); Sherwood, Sidney, *The University of the State of New York* (1900); Honeywell, R. J., *The Educational Work of Thomas Jefferson* (1931); and Hinsdale, B. A., 'Notes on the History of Foreign Influence upon Education in the United States', *Report of the Commissioner of Education for the Year 1897-8*, Vol. 1, pp. 591 ff.

stamp on the Middle West. The political *entente* between France and America in 1778 contributed strongly towards the accentuation of French culture in America. Things French became *comme il faut*. Instruction in the French language became the style in American colleges, Columbia establishing a chair of French in 1779, Harvard giving it a fairly permanent place in its curriculum in 1780, William and Mary in 1793, and Union in 1806. During this same period academies similar to the French Academy were established. In 1780 the American Academy of Arts and Sciences was founded in Boston, partly under the inspiration of John Adams, then American envoy in Paris. Its founders placed on record the statement that it was their intention 'to give it the air of France rather than that of England, and to follow the Royal Academy rather than the Royal Society'. Thus in Boston the Academy published *Memoirs* while British-dominated Philadelphia continued to issue *Philosophical Transactions*. During these same years Quesnay du Beaupaire, grandson of the famous physiocrat and a French officer in America during the American Revolution, inspired the Academy of Sciences and Fine Arts in Richmond.

Similarly the French educational philosophy, which had been nurtured by the eighteenth century Enlightenment, affected the plans for the establishment of American universities. Under this influence the University of the State of New York was organized in 1784 as a non-teaching and non-degree-granting institution to supervise the state-wide system of education in all its branches. Likewise when Michigan, long within the orbit of French missionaries and traders, projected its state university in 1817, French influences dominated. Furthermore, when Thomas Jefferson conceived the University of Virginia, his educational theories of a state institution independent of the church were, in large measure, of French inspiration.

Because of the French Revolution the political friendship between the United States and France waned, but American interest in French culture was to a degree maintained, partly by the influx of aristocratic and priestly *émigrés*. During the Napoleonic period American contacts with Frenchmen and with French culture were relatively slight, but after 1815 Bonapartist exiles and a thin stream of French immigrants, especially after 1830, combined with French influences in Louisiana and in portions of the Middle West to make cosmopolitan and middle-class groups conscious of French culture.

French influences upon American higher education might have continued to grow in importance except for three circumstances: first, the Catholicism of the French, second, the opposition to French liberalism which gripped New England, and third, the rise of the influence of German universities. The New Englanders came to hate France because of the political and religious liberalism which the French Revolution let loose. Strongly Federalist, New England rapidly cast off all traces of French cultural penetration, and stirred by the newly published praises of Germany, they turned from the Seine to the Rhine. Since America offered no opportunities for study beyond the undergraduate college, ambitious Americans set out for European universities. Except for those interested in the arts the number choosing France steadily decreased while the number going to Germany grew with great rapidity. The New Englanders in general avoided France for political reasons, and students from the politically more liberal sections of the country likewise eschewed it since French higher education centred in Paris, and Paris had the reputation of being a wicked city. Parents, predominantly puritan in their ethical outlook, feared to trust their sons to its blandishments.

Added to these prejudices were a number of pointed academic considerations. While the Germans were building their revived culture upon science, French academicians joined with the English in neglecting scientific instruction. Pasteur, Bernard, and others attained international eminence during the middle of the nineteenth century because of their brilliant scientific work; but, neglected until late in life by the intelligentsia and the academic bureaucrats, they toiled away in poorly equipped and under-supported laboratories which made practically no provisions for graduate students. Thus Americans, stirred to their depths by the scientific urge and thrilled by the progress of German universities, flocked to Germany. Except for those interested in the fine arts, few Americans studied in France after the middle of the century. Almost unknown to Americans in 1815, Germany—because of the devotion of its universities to the scientific method—succeeded in reducing French influences upon American higher education to relative unimportance.

1850 to the World War: Early during the century Americans had begun to look to Germany rather than to England and France for educational leadership. During the second decade of the century Ticknor from Dartmouth, and Everett, Cogswell, and Bancroft from Harvard had discovered Göttingen and then Berlin. Returning home after several years of enthusiastic discipleship at the shrine of German learning they opened up a highway to German universities over which two hundred other American students had travelled by 1850. By 1914 some ten thousand Americans had followed these pioneers, the great majority of them returning to professorships in American colleges. Enamoured of German scholarship and of German educational methods, they sought to reorganize American higher

education after the German pattern. So important have been German influences upon American higher education that the rise of German universities to world eminence must be briefly reviewed here.

After the battle of Jena, Prussia sank to the status of a third-rate power, and the treaty of peace signed at Tilsit in 1807 drove the leaders of the nation to a desperate effort to revive the self-respect and energies of their people. In this great crisis the philosopher Fichte took to the lecture platform with a series of fourteen *Addresses to the German Nation*. 'If Germany is to be saved,' he declared, 'the nation must be taken as the unit of social organization. Germany must realize its character and destiny, and through a conscious control of education, it must liberate all its potentialities—moral, intellectual, physical, vocational—for national service.'¹ So cogent were Fichte's arguments and so pervasive his prestige that the German people as a unit reached out to education as their means of regeneration.

The legislation which followed Fichte's ardent appeal established a national system of education which included not only the reorganization of the common schools but also the development of scholarship and research in the universities. 'The State', Frederick William III declared, 'must replace by intellectual forces the physical forces which it has lost.'² Napoleon had devastated the country, closed most of its universities, annexed others, and generally destroyed the national morale; but greatly stirred by the Prussian King's pronouncement and by the unanimous agreement of their leaders, the people set to work through the medium of education to regain what they had lost. In 1809 the University of Berlin arose from the ashes of

¹ Abstract of Johann Gottheb Fichte's *Addresses* by Reisner, Edward H., in *Evolution of the Common School* (1935), pp. 218-19.

² Beard, Charles A. and Mary, *The Rise of American Civilization*, vol. i (1927), p. 809

defeat and despair, the symbol of a nation which, though beaten in the field, would not be downed spiritually. At the same time Göttingen, Leipzig, Bonn, Giessen, and other German universities took on new life, and developing an intense nationalism, they sought and soon achieved world hegemony in all branches of learning, science prominently included.

Even before this rebirth the Teutonic universities had begun to pull away from the traditionalism of their sister institutions in France, England, and Italy. During the early seventeenth century the Dutch universities of Leyden and Franeker had made an almost clean break with the past; and long before Napoleon had made the University of Halle a part of his puppet State of Westphalia, Christian Wolff, its leading professor, had repudiated Aristotelianism and the dependence of philosophy upon theology.¹ In France and England these shackles had already been thrown off, but the emancipators were independent thinkers, such as Descartes, Locke, and Hume, who were not connected with universities. In these countries the academicians continued to concentrate upon theological and verbalistic studies, but because of Wolff and his associates Francke and Hecker, German scholars were able to free themselves and their institutions from the heavy hands of the medievalists and the theologians, the professors of other European nations delaying the break for another century.

This circumstance gave German universities a striking advantage not only in philosophy but also in philology and the physical sciences. Wolff built his thinking upon the premise that philosophy should seek the truth free from all theological assumptions. Not only had he been profoundly impressed by writings of the rationalists of other nations,

¹ Paulsen, Friedrich, *The German Universities and University Study* (1906), p. 45.

but he also recognized the evolving disciplines of mathematics and physics as the natural allies of his system of thought. Similarly he saw in philology a scientific tool for ferreting out the contradictions and discrepancies in the philosophical and religious writings of the ancients. When he died in 1754 his philosophy had come to dominate both the universities throughout central Europe and the Prussian court; and the humanistic and physical sciences which he encouraged were well on their way to academic respectability and prominence.

Kant carried on in philosophy where Wolff left off, and bringing rationalism to bear upon ethics, his teachings penetrated all the leading universities of Europe, including those controlled by the Roman Church. The universal homage that came to him not only reflected upon the University of Königsberg, where he taught for forty-two years, but it also brought recognition to Germany as an intellectually powerful nation. Kant died in 1804, but his leadership had much to do with preparing the way for the national awakening during the next decade. Similarly the mighty achievements of Lessing, Herder, Schiller, and Goethe in literature and the revolutionizing accomplishments of Mozart, Gluck, Haydn, and Beethoven in music produced an overwhelming conviction of greatness among the Germanic peoples. German philosophers were surpassing Englishmen and Frenchmen; German poets and dramatists were exhibiting a genius rivalled only by Shakespeare; German and Austrian musicians were completely dominating eighteenth century music; and German universities were striding ahead rapidly in science and literary scholarship while those of the rest of Europe dozed in the decaying past.

Against this background the University of Berlin opened its doors in 1810. A national catastrophe brought it into

existence, but the way had been prepared for it by a hundred years of intellectual dredging at Halle, Königsberg, and their sister universities, and by the epoch-making achievements of Germans in the arts. Emotionally of incalculable value as a national monument of renaissance, Berlin sent its torrents of new energy into channels which had already been deeply cut. The founders, although chiefly philosophers and philologists, continued in the Wolffian-Kantian current; and chairs in physics, chemistry, geology, and other sciences were early established to match those in existence or planned in the reanimated universities which the French had not succeeded in destroying. Further to promote the unity of the nation and to stimulate its progress, the Berlin founders also took over the Academy, making it an organic part of the University. In this fashion they concentrated the scientific leadership of Germany in the universities rather than in independent societies as in England and France.¹

The completeness of her adoption of the scientific method and the thoroughness of her professors established Germany in but a few decades as the leading nation of the world in all avenues of thought: science in all its branches, philosophy, humanistic scholarship. Soon enthusiastic visitors began to proclaim her greatness. Mme. de Stael and Victor Cousin wrote books for the French, and Coleridge and Carlyle triumphantly 'marked an epoch in the history of English opinion'² when they introduced German literature and German transcendentalism to England. Americans, attracted by English and French fervour, came to marvel, to study, and to write home about what they experienced. Before the middle of the century a score of books on Germany and a dozen on German education had been published in

¹ Paulsen, *op. cit.*, pp. 4, 167-78.

² Hinsdale: *Report of U.S. Commissioner*

America written by Griscom, Bache, Stowe, Mann, and others. Nor was the chorus of exhilarated approval short-lived. Matthew Arnold, visiting Prussia in the eighteenth-sixties, discovered that 'the idea of science governed every department of human activity'.¹ A Frenchman, Ferdinand Lot, in 1892, wrote that 'the intellectual supremacy of Germany, in all fields, without exception, is at present recognized by all nations'.² Bryce about the same time extolled 'the glorious eminence' of German science,³ and Huxley in 1868 lauded the German universities as 'the most intensely cultivated and the most productive intellectual corporations the world has ever seen'.⁴

In response to these acclamations aspiring young scholars and scientists flocked to the German universities from all the civilized nations of the globe. Meanwhile Oxford and Cambridge and the French institutions plodded along the classical road oblivious of the grass which had come to grow lustily down its middle. In a bitter tirade against British backwardness Huxley wrote:

'The foreigner who should wish to become acquainted with the scientific or the literary activity of modern England, would simply lose his time and his pains if he visited our universities with that object.

'And, as for works of profound research on any subject, and, above all, in that classical lore for which the universities profess to sacrifice almost everything else, why, a third-rate, poverty-stricken German university turns out more produce of that kind in one year, than our vast and wealthy foundations elaborate in ten.'⁵

The classical curriculum alone did not account for this situation in England. No less important was the fact that

¹ *Friendship's Garland* (1903 edition), p. 10.

² Paulsen, *op. cit.*, 168-9

³ *The American Commonwealth* (1913 edition) II, p. 741.

⁴ *Science and Education* (1896 edition), p. 106.

⁵ *Ibid.*, p. 104.

the established church controlled the two ancient seats of learning, and no one could be a candidate for a degree unless he were an Anglican, a requirement which remained in effect until 1871. Nor did Oxford and Cambridge make any provision for advanced studies. They continued to offer general education only, and quite naturally American students preferred Germany where they could prepare to become teachers in American colleges. Moreover, German universities held out the degree of Doctor of Philosophy as a tangible evidence of preparation for teaching. In England the doctorate for teaching and research became established only in the twentieth century, and to this day it is not popular.

The French, as well as the British, had strong ties with America; but—as already observed—through these, too, the German universities were able to break. Unwelcome in England, afraid of France, and intensely stimulated by the vigorous German universities, American students eagerly headed for Germany. Remaining long enough to be indoctrinated by German culture and German educational thought, these young Americans with hardly an exception became passionate devotees of German scholarship, unrestrained enthusiasts for German educational methods, and as one of them expressed it, ‘the intellectual subjects of Germany’.¹ Thus teutonized by German universities, the best brains of American academic life initiated one of the most powerful movements that American education has experienced: the effort to improve the American college and particularly to adapt it to the purposes of scholarship and research. Ticknor and Bancroft began the campaign in the eighteen-twenties. In their immediate objectives they failed almost completely, but by the middle of the century their hopes and activities were being carried forward by an ever-growing number of enthusiasts who by 1900

¹ Minot, Charles S., *Science*, 6th December 1912, pp. 771–6.

virtually remade American higher education after models suggested by their German experience.

The American educational leaders who set about to transform American higher education and to establish universities comparable to those of Germany followed two courses of action: (1) the majority of them attempted to adapt the college, built on British foundations, to the German model; (2) a small number of leaders attempted to establish independent universities unhampered by historical backgrounds. The chief leader of the first of these two movements was Charles W. Eliot of Harvard. The leaders of the second were Henry Tappan of Michigan, Daniel Gilman of Yale, California, and Johns Hopkins, and G. Stanley Hall of Clark University. Both movements have made their important contributions to the present status of American higher education, but the first, because of American predilections, became the more important of the two. This will become apparent in the following review of both.

Charles W. Eliot, a professor of chemistry at the Massachusetts Institute of Technology, a former member of the Faculty of Harvard, and a graduate thereof, became President of Harvard at the age of thirty-five in 1869. Aware of the powerful pressures playing upon American life and American education, he had spent two years during his early thirties studying European education. He concluded that Germany provided the best models for the organization of an institution dedicated to scholarship and the extension of knowledge. Thus he sought to remake Harvard from a small, British-initiated college into a university.

Toward this end he took three important steps: first, he set about strengthening and adding to the professional schools which were geographically associated with Harvard but whose administrative ties were weak; second, he put

new life into the elective system of studies which Ticknor had brought back from Germany and had unsuccessfully attempted to establish at Harvard in 1825; third, he established a graduate school as a superstructure upon the undergraduate college. Predecessors of Eliot at Harvard and others at Yale had attempted all three of these steps, but none had been especially successful and none had succeeded with all three efforts simultaneously. Eliot, however, a man of tremendous energy and determination, succeeded spectacularly in all three directions. When he took office in 1869 Harvard had but 1,050 students in all departments and a faculty of fifty-nine. When he laid down his office in 1909 his institution had become one of the world's great universities, its students numbered 3,882 and its faculty members had increased more than tenfold.¹ He killed and buried the limited arts college curriculum which he had inherited. He built up the professional schools and made them an integral part of the university. Finally, he promoted graduate education and thus established a model which practically all other American universities with graduate ambitions have followed.

Meanwhile, other leaders were travelling down the second road, i.e. the road leading to the establishment of universities independent of undergraduate colleges. Henry Tappan became President of the University of Michigan in 1852 and for nine years he did his best to reorganize it after the German model. His Prussian ideas were, however, too far advanced for a pioneer culture, and in despair he left the country, never to return. Gilman, however, succeeded where Tappan failed. In 1876 he established the Johns Hopkins University with funds provided by Johns Hopkins, who had made a fortune in the development of the Baltimore and Ohio Railroad. Gilman's interest was entirely in graduate

¹ James, Henry, *Charles W. Eliot* (1930), vol. II, p. 347

instruction. He believed that America needed a great university of the sort which had been so successful in Germany. Announcing at the outset that he would put no money into buildings but would concentrate his funds upon men who were outstanding scholars, he built up a world-famous faculty. At the same time under the will of Johns Hopkins he organized a combined medical school and hospital which have continued through the decades to be one of the most outstanding medical establishments in the United States.

Great as has been the contribution of Johns Hopkins to American higher education, it has nevertheless not been able to stand up as a university independent of undergraduate instruction. Thus, reluctantly, but of financial necessity, Hopkins soon organized an undergraduate department. The American people were not and, apparently, are not convinced of the need of universities which devote all of their energies to advanced higher education. After Hopkins came Clark University (1888) which has had much the same experience. These two great institutions, which in the nineties were considered to be of such great significance in American higher education, have lost their leadership to Harvard, Chicago, the University of California, the University of Wisconsin, and other such institutions which have followed the Harvard plan of organization, to wit, a graduate school superimposed upon the undergraduate college.

American institutions of higher education have been tremendously influenced by the organizational methods of German universities, but quite as important has been the example of German science. The Germans applied the scientific method to every conceivable kind of knowledge—the arts prominently included—and fascinated American students brought back their point of view to America and

especially to American colleges. The classicists had fought the inclusion of science in the curricula of American colleges, but when the German wave grew to its full height even the classicist began to apply scientific techniques to literature. Thus the humanistic emphasis in education dwindled to a faint voice in American education, and science came to dominate educational philosophy.

German examples had a third and equally profound effect upon American higher education: the undermining of the 'collegiate way of living' and the close personal relations between students and professors which had characterized all colleges until the influx of German ideology. In the attempts to make over Harvard, Columbia, Yale, and other leading institutions from colleges to universities, faculties left their students to their own devices. This impersonalistic point of view spread to colleges large and small. Faculty members no longer had time to be interested in their students. They sought the newly prized label of the professoriate, the doctorate of philosophy; and when they had acquired that, they devoted their time and their energies to research rather than to their students. Their increases in salary and their elevations in rank were, they came soon to learn, to be determined by the number of their scientific and scholarly publications, and quite naturally they followed the demands of their administrative superiors. Fifty-five years ago (1884) the Harvard faculty consisted of 189 members, only 19 of whom had their Ph.D.'s. During the same year the Michigan faculty was made up of 88 members, only 6 of whom had Ph.D.'s. These few doctors of philosophy, however, formed a vanguard of a great army of college teachers who rapidly became entangled in what William James called the Ph.D. octopus; and as they became entangled, by the very nature of their entanglement they were forced to devote their energies to scholarship and

research and to neglect the personal relationships with students which had until that time been one of the most cherished characteristics of American higher education.

German and continental philosophies of education were chiefly responsible for this revolutionary change, and American educational leaders, trained in Germany or devoted to German ideals, led the onslaught upon the old order. Francis Wayland¹ began the attack at Brown in 1842; Tappan² followed him at Michigan ten years later; Barnard³ joined them at Mississippi, Alabama, and Columbia; White⁴ at Cornell added the force of his tremendous prestige to the new point of view; and Eliot, fresh from his study of European education, read in his inaugural address at Harvard in 1869 the death sentence of the old order.⁵ Students were to be considered adult men who needed no personal interest from their instructors. The paternalism of the past thus gave way to almost complete indifference.

This mood spread through all avenues of student life. The old and deeply ingrained interest in the housing of students vanished. Commons for the serving of food frequently disappeared. The disciplinary rule books grew thinner and thinner. Interest in student religion waned. The elective system permitted a student to study what he pleased with no one to gainsay him if he chose nothing but elementary courses throughout all his four years. Finally, in 1886, Harvard adopted the continental philosophy of

¹ Wayland, Francis, *Thoughts on the Present Collegiate System* (1842).

² McLaughlin, Andrew C., 'History of Higher Education in Michigan', *Bureau of Education Circular of Information No. 4*, 1891, p. 52.

³ Barnard, F. A. P., 'Analysis of Some Statistics of Collegiate Education', a paper read before the Trustees of Columbia College, 3rd January 1870, pp. 28-9.

⁴ *Autobiography of Andrew Dickson White* (1905), I, p. 349.

⁵ Eliot, Charles W., 'Inaugural Address as President of Harvard College', *Educational Reform* (1898), p. 18. See also: 'Liberty in Education' (Address before the Nineteenth Century Club of New York in 1885), *ibid.*, pp. 129, 146-7.

student life *in toto* by announcing that attendance at classes would no longer be taken for juniors and seniors and that they would be required to pass only course examinations.¹ What the student did with his time between registration at the beginning of the year and final examinations at the end, no one cared. Impersonalization had set in with a vengeance.

In the judgment of many American educators the rise of athleticism and the strong grip which so-called extra-curricular activities have upon American college students may be ascribed to this German-born impersonalism. The statement is frankly controversial, but it is significant to observe that intercollegiate athletic contests and huge extra-curricular undertakings in dramatics, student publications, and other such enterprises began to grow to their present large stature at the time that impersonalism came to control the thinking of college faculties. With some justice the statement is made that students, finding faculty members engrossed in research, and being little interested in research enterprises themselves, set up their own student life giving play to their own systems of values. That there is much truth in this generalization, most Americans will agree, although it must also be borne in mind that the coming of democracy brought many students into the colleges who were not interested in learning *per se* and also that the individualistic and competitive nature of American society has stimulated student undertakings which give students training while in college (under their own auspices) for the traits of character which are considered so important in American industrial, business, and even professional life.

Whatever justice there may be in laying the strength and importance of athleticism and other extra-curricular activities at the door of German educational examples, it must be admitted that German universities tremendously influenced

¹ This plan failed and was soon abandoned.

American higher education in this direction as well as in the two others already discussed: the reorganization of the structure of higher education and the adoption of the scientific method. These three pressures from Germany completely transformed the American college, and Germany rather than England became the chief source of inspiration for American educators.

Since the World War: German leadership continued until the World War, and indeed predominates in many particulars to this day. English points of view, however, returned to favour after the War in at least three directions: first, the housing of students; second, methods of instruction; and third, the objectives of education. Each of these deserves at least brief discussion.

The proponents of German impersonalism directed much of their criticism to the housing system which America had taken and adapted to its purposes from English universities. These attacks upon dormitories¹ continued without abatement until the eighteen-nineties when a reaction set in. Yale, Chicago, and Princeton led this reaction, and during recent years both Harvard and Yale have given it great impetus. Yale had always been convinced of the validity of the housing programme, and while Eliot was doing his best to kill it at Harvard, the Yale presidents whose careers paralleled his fought for its continuance. From Yale the dormitory idea spread to the Middle West where it had made practically no headway theretofore. William Rainey Harper, a Yale professor of Hebrew, had organized and become president of the University of Chicago in 1893, and he took with him an enthusiasm for dormitories. He built four in the first

¹ Residential units in the colleges of the United States are generally known as 'dormitories'. For a discussion of their development, see Cowley, W. H., 'The History of Student Residential Housing', *School and Society*, 1 and 8 December 1934.

group of university buildings, devoting 57.3 per cent. of the total building cubature to them. By 1900 he had erected seven 'in spite of the prejudice against them at the time in the West on the ground that they were medieval, British, and autocratic'.¹ The leadership of Chicago, so potent in all other matters of higher education, had its important influence in arousing other middle-western institutions to an interest in housing.

Meanwhile important developments were taking place at Princeton. Early during the twentieth century Princeton erected a graduate school built upon the philosophy that 'the enriching advantages of mutual incentives and community of intellectual interests' can be made possible only by 'an identity in mode of living' and by 'residential intimacies'. Woodrow Wilson, following the leadership of Dean Andrew F. West of the Graduate School, proposed in 1907 that Princeton go even further and adopt the English system of housing students and unmarried members of the faculty in the same buildings. He sought to make the housing units of Princeton educational agencies as well as body shelters. In this effort Wilson failed, but Harvard and Yale, financed with many millions of dollars given by the philanthropist Edward Harkness, reorganized after the English housing model in the late twenties. The Harvard units are called houses, the Yale units, colleges. In both institutions members of the three upper classes² reside in these buildings, each of which includes approximately 250 students. Each house or college is under the direction of a resident master who lives within the structure (often consisting of several structures) with his family. Each house or college has its dining-room, its common-rooms, its

¹ Reeves, F. W., Miller, E. C., and Russell, J. D., *Trends in University Growth* (1933), p. 158.

² i.e. sophomores, juniors, and seniors.

library, and studies for members of the faculty of the university who have been elected fellows.

These new housing units have completely revolutionized the life of both Harvard and Yale. They have brought back some of the important educational values that the German point of view considered so insignificant: the camaraderie of the dining-room, close association between students and faculty members, small student groups to replace mass organization, and most important of all the identification of housing with the educational programme.

Unfortunately no other American colleges and universities are sufficiently well off financially to follow the lead of Harvard and Yale in their housing programmes, but even before the initiation of their houses and colleges, housing had again come to the fore as a highly valued educational enterprise. In 1896 Columbia turned its back upon the German philosophy so strongly supported by former President Barnard and built its first dormitory. Cornell two years later followed by building a small cottage for women students, and in 1914 it erected its first dormitory. The state universities also fell into line, Minnesota building its first dormitory in 1897, Illinois in 1916, and even Michigan capitulating with two in 1915. Hundreds of other colleges and universities have followed these eastern and middle-western leaders. The movement has been considerably hampered by the depression (except in state universities where dormitories are being built with federal money), but it has remained actively alive. Nowhere outside of Harvard and Yale are dormitories an integral part of the instructional programme, but despite this fact, English influence has at this point completely superseded the German.

English influences upon methods of instruction have also been prominent since the World War. Indeed, even before the War, Woodrow Wilson had successfully trans-

planted the spirit and some of the structure of the English tutorial system to Princeton. He called his programme the preceptorial system and arranged for the assignment of upperclassmen to preceptors and for the reduction of preceptorial classes to not more than half a dozen students. Other institutions have followed the Princeton lead, particularly Harvard, which early during the administration of President A. Lawrence Lowell (beginning in 1909) adopted the tutorial method for upperclassmen in all but a few instructional departments. In no American institution of higher education has the English system of tutorial instruction been completely adopted, but the initiation and successful carrying forward of several similar plans attests the return of English influence in American higher education.

Another English precedent has come into at least a hundred colleges: the honours course, an adaptation of the honours work done at Oxford and Cambridge. The initiator and chief proponent of this programme is a former Rhodes scholar and the official representative in the United States of the Rhodes Scholarship Trust: Frank Aydcotte, President of Swarthmore College. The honours student is, in general, selected after two years of college work to specialize in one or more related departments of instruction. He then, under the tutelage of a member of the faculty, works in a limited and specialized curriculum unrestrained by the usual requirements of class attendance. He is selected because he is considered to be an unusually able student and is assumed to be likely to do better work as an honours student than he could in the usual academic moulds. Thus he is held responsible for a thesis and for the passing of comprehensive examinations.

The third influence from England relates to the objectives of education. The Germans asserted that the responsibility of education related only to the training of the student's

mind. They had no interest in him as a person. What he did with his time outside of class hours, or indeed between matriculation and final examination, no official of the German university knew or cared. This impersonal attitude contrasted sharply with the British scheme of things and also with the American. As already indicated, however, the German point of view rapidly superseded the English, and American colleges and universities became as thoroughly impersonal as the traditions of the country would permit. The same reaction which set in against the abandonment of housing programmes served to call a halt to the intellectualistic philosophy in other directions. In this movement President Lowell of Harvard, Eliot's successor, took the lead. Taking issue with the intellectualism of Eliot, he opened his inaugural address with this paragraph:

'Among his other wise sayings, Aristotle remarked that man is by nature a social animal; and it is in order to develop his powers as a social being that American Colleges exist. The object of the undergraduate department is not to produce hermits, each imprisoned in the cell of his own intellectual pursuits, but men fitted to take their places in the community and live in contact with their fellow men ' ¹

This utterance served as a clarion call to hundreds of other administrators and professors who deplored the German inroads, and they set about to bring back the personal factor to American higher education. Since most professors continue to give most of their energies to research and scholarly work, the administrative problem of working with students individually and outside the classroom has been handled in various ways. Harvard and Yale and many other institutions have attempted with some success to

¹ Lowell, A. Lawrence, *At War With Academic Traditions* (1934), p. 32.

individualize instruction. Others have put their chief faith in specialized administrative officers called personnel workers, deans of men, deans of women, deans of freshmen, director of admission, social directors, student counsellors, vocational counsellors, dormitory directors, directors of placement bureaux, and a variety of others. The student person, movement and individualized instruction are not mutually exclusive since at many institutions they exist parallel to one another. Such administrative details are not heretofore important. What is important is the fact that the intellectualism, the emphasis upon the intellectual training of the student exclusive of all other considerations, has largely been abandoned.

WORLD INFLUENCES

In addition to the influences upon American higher education from England, Scotland, France, and Germany attention must be given to at least three world-wide influences: the rise of science, the growth of machine technology, and the secularization of modern life. All of these movements originated, of course, in Europe; but not one of them can be called nationalistic in the sense that the movements discussed thus far were nationalistic. They are, therefore, referred to here as world-wide.

Science: Except for the beginnings made in Germany the universities of the world played little, if any, part in the momentous development of science until the nineteenth century. Controlled by the classicists and religionists they looked with unconcealed disdain upon what they considered to be the spiritually unprofitable grubbing of the scientists. To this day chemistry is referred to by students and by not a few dons at Oxford and Cambridge

as 'stinks', a designation coined a century ago to express the dislike and hostility which they and the university authorities felt toward it and the sciences in general. Because the great seats of learning had no interest in the problems which absorbed their attention, the rational philosophers and scientists of the seventeenth and eighteenth and even the nineteenth centuries were seldom found in the universities. Bacon, Hobbes, Locke, and Berkeley, Descartes, Spinoza, and Leibnitz; Harvey, Huygens, and Laplace; Linnaeus, Buffon, Lamarck, and Cuvier; Boyle, Lavoisier, Priestley, and Dalton; the two Mills, Bentham, and Ricardo; Wallace, Darwin, and Spencer, were not university professors or not primarily such.

In the early sixteen hundreds Francis Bacon had suggested the place of scientific investigation in the university in his *The Advancement of Learning* and in his sketch of Solomon's House in his *New Atlantis*, but Parliament in 1584 had turned down a joint proposal of Oxford and Cambridge for the endowment of research, fearing 'such a plan to be "the way to overthrow all colleges, cathedral churches and places of learning", to extinguish the study of divinity . . . and breed a great confusion and alteration in the church and commonwealth'.¹ Newton began his career at Cambridge, but he gave up his chair to take a position in the Royal mint. In this he typified the wide breach between the universities and science. As late as 1850 a Parliamentary Commission berated Oxford because of 'the absence of a body of learned men devoting their lives to the cultivation of science'.

The same attitudes held back science in the United States. The scientific work done in America was undertaken largely by individuals with no academic connections. During the seventeenth and eighteenth centuries eighteen Americans were elected to the Royal Society, but the colleges paid

¹ Mullinger, J. C., *The University of Cambridge* (1884), p. 309.

practically no attention to science until a few courses began to make their appearance during the early nineteenth century. The word *science* appears frequently in the literature of the colonial colleges, but it derived from the original Latin meaning of *knowledge*, and was universally so defined and employed. Until Silliman established his chemical laboratory at Yale in 1808 the classics and mathematics with a little history shared the curriculum with the theological studies, and modern science had a small and insignificant place.

Meanwhile Americans outside academic cloisters were busy at research stimulated by European examples. In astronomy Thomas Brattle made observations of the Great Comet of 1680 which Newton acknowledges in the *Principia*. In electricity Franklin's pioneer work attracted the attention of all the learned world and contributed more than any other factor to the warmth of his British and especially his French receptions when he went abroad to represent the colonies and the new nation. In botany Colden, Logan, Bartram, and Mitchell all earned reputations in Europe; Lining and Chalmers worked in physics and meteorology; Maury explored the mysteries of marine physical geography; and a score of other non-academic investigators carried on in the various avenues of science which had been opened up.

Despite the occasional courses of instruction that were offered in the colleges, science failed to achieve recognition as one of the functions of higher education 'until', as Abraham Flexner has observed, 'the flag was nailed to the mast on the opening of Johns Hopkins University'. Jefferson had written to a friend in 1799: 'I am for encouraging the progress of science in all its branches', and he had kept this enthusiasm in mind when he organized the University of Virginia. The academic world, however, never seriously considered either scientific instruction or

research until the Civil War had passed, and Eliot, White, Gilman, and other administrators threw their strength behind it. The classicists and the churches continued to oppose the new learning with all their power, but they fought a losing fight; and building upon the foundations which Silliman, Gray, Guyot, Agassiz, and their associates had laid, the scientists soon converted the universities into the pivots of American science. More than two centuries had passed since Galileo had opened the flood-gates of modern scientific investigation; and although it took all that time to break through the academic dykes, when the deluge came it changed the whole educational landscape.

The academic dykes gave way but slowly even after the middle of the nineteenth century. In 1876 the people of the United States celebrated the centennial of the establishment of their nation. The scientific situation at the time of the centennial came in for considerable discussion among scholars and academicians, and two of them—Clarke and Newcomb—took the opportunity to parade before their fellow countrymen the relative poverty of American scientific achievement. Clarke declared that the inducements and opportunities for first-rate scientific research were lacking, that the dissipation of funds and energy throughout the multitude of small institutions retarded scientific investigation, and that sectarian influences in higher education were not conducive to a scientific search for truth. He asserted that 'America, when compared with other first-class nations occupies a low position in science. For every research published in our country, at least fifty appear elsewhere. . . . Our original investigators in any department of learning may almost be counted on the fingers. . . . There may be in the United States, all told, twenty men of really notable scientific standing, although there is not one to compare in

actual achievements with Sir William Thomson, Helmholtz, or Regnault.' ¹

With this judgment Simon Newcomb, America's leading astronomer, largely agreed. He declared: 'the development of the higher branches of the sciences [is] marked by the same backwardness which characterizes the higher forms of thought in other directions; and that however eminent we might stand in the lower branches, we . . . find ourselves far behind in the higher ones'. This 'comparatively imperfect development of our thought in the direction of science is not due', he observed, 'to any lack of native ability', but rather could be accounted for by the absence of government support, by the failure of Americans to give their lives to continuous scientific investigation, and by the meagreness of facilities for the publication of scientific literature. ²

With the opening of Johns Hopkins University during the same year that the centennial was being celebrated, and with the establishment of graduate schools at Harvard, Yale, Columbia, and dozens of other institutions, these limiting checks upon science rapidly vanished. The colleges and universities went in for science with an enthusiasm that has remade American higher education, the attitudes of Government officials, of industrial managers, and indeed of the American people at large. To-day, America, perhaps more than any other nation, is supporting, encouraging, and stimulating scientific investigation. Science, indeed, dominates American life and therefore American higher education. ³

¹ Clarke, F. W., 'American Colleges *versus* American Science', *Popular Science Monthly*, IX (1876), pp 467-79.

² Newcomb, S., 'Abstract Science in America, 1776-1876', *North American Review*, CXXII (1876), pp 88-123.

³ Schlesinger, A. M., *The Rise of the City, 1878-1898* (1933), pp 202, 230-7; Faulkner, H. U., *The Quest for Social Justice, 1898-1914* (1931), p 229; McGee, W. J., 'Fifty Years of American Science', *Atlantic Monthly*, LXXXII (1898), pp 307-20; Lowie, R. H. in Stearns, H. E. ed., *Civilization in the United States* (1922), p. 153.

Machine Technology: Springing up independent of science and paralleling it for at least a century, machine technology joined with science during the middle of the nineteenth century to transform European and American life from agricultural and maritime societies to mechanized economies. In the United States the changes have been perhaps more spectacular than in any other nation. In 1800, 90 per cent. of the population of the United States had been employed in agriculture. By 1890 agriculture, lumbering, and fishing combined engaged no more than $37\frac{1}{2}$ per cent. The remaining numbers were largely at work in newly developed industrial pursuits and in services growing from them. So all-inclusive were the results of the new industrial techniques that the old order swiftly disappeared, and toward the end of the century Henry Adams nostalgically wrote that 'the results of this revolution on a survivor from the fifties resembled the action of the earthworm; he twisted about, in vain, to recover his starting-point; he could no longer see his own trail; he had become an estray; a flotsam and jetsam of wreckage. His world was dead.'¹

The death of Adams's world can perhaps best be demonstrated by the number of inventions patented in the United States. Congress established the Patent Office in 1836. By 1860, 36,000 had been granted; by 1900, 640,000; by 1911, 1,000,000, and on the centennial of the establishment of the office (6th July 1936), 2,046,309.² The tremendous increase in the number and in the rate of issuance of patents after 1860 is accounted for by the wedding of the new technology and science. The steam engine, the railroad, the textile mill, the iron ship, and the host of other inventions before the middle of the nineteenth century were by and large not the products of science. Instead they came into existence

¹ Adams, Henry, *The Education of Henry Adams* (1918), p. 238.

² *New York Times*, 5th July 1936

through the ingenuity of practical men who worked them out by the method of trial and selection. 'It was', writes Mumford, 'men in the mine, the factories, the machine shops and the clockmakers' shops . . . or the curious amateurs with a turn for manipulating materials and imagining new processes, who made them possible.'¹ Scientists played little part.

With the establishment of a large number of European and American engineering schools during the middle decades of the century, however, scientifically trained men joined forces with imaginative and skilful mechanics, and the principles of the pure sciences were brought to play upon industrial problems. Scientific investigators up until this time had been entirely concerned with answering man's problems about the universe. They had no immediate interest in utility, but when men trained in science entered industry, inevitably their generalizations found technological applications. The groundswell of the industrial revolution now became a deluge inundating every sector of modern life. Nothing remained untouched, and higher education, along with everything else, yielded to its pressures.

The Secularization of Modern Life: The same secularizing influences which came to dominate European nations entered and gradually came to control the United States. Through all its colonial history American society had been predominantly religio-centric. The theocratic system had been overthrown in New England before its first century had passed, but Church and State continued to be closely related; and except for free-thinking groups among the intelligentsia, in the south, and on the frontier, Americans as a people clung to the numerous but sturdy faiths of their fathers. About the time of the Revolution, however, winds of doctrine

¹ Mumford, *Technics and Civilization* (1934), pp. 215-16.

from France and England began to buffet the churches; and when, during the middle of the nineteenth century, currents of biblical criticism from German scholars were added, the gale grew into a hurricane sweeping American life into widespread secularization. In this transformation Church and State split apart, and the cords which historically had bound higher education to religion either snapped entirely or lost much of their tension.

The separatist movement, reaching back for its sources to the fourteenth and fifteenth centuries as well as to the Reformation, took firm root in the American colonies. Roger Williams and Thomas Hooker, the first American exponents of the separation of government and religion, took their inspiration from the English branches of the movement. Upon their passing, other leaders carried forward their principle, nursing it along until it eventually found its way into the Constitution of the United States.

In achieving this eventual triumph the deists added their strength. Springing from the impact of science and rationalism upon religion, deism also advocated the separation of Church and State, but on different grounds. While the successors of Williams and Hooker were battling for religious tolerance and independence in the churches, the deists were seeking the same ends by attacking revealed religion itself. From both England and France, but chiefly from the latter, deism came to the American colonies, where it soon won the support of the majority of their intellectual and political leaders. In the disputes with England which prepared the way for the Revolution, American deists stood out prominently among the tribunes of the colonies, and 'when the crisis came,' to quote the Beards, 'Jefferson, Paine, John Adams, Washington, Franklin, Madison, and many lesser lights were to be reckoned either among the unitarians or the deists. It was not Cotton Mather's God

to whom the authors of the Declaration of Independence appealed: it was to "Nature's God".¹ With the end of the Revolutionary War the people in large numbers followed these leaders into an outright disdain for established religion. For this Thomas Paine was chiefly responsible. Because of the nation-wide prestige which his revolutionary pamphlets, *Common Sense* and *The Rights of Man*, had brought him, he found an enthusiastic public ready for the slashing, vitriolic attack upon the churches which he published as *The Age of Reason*.

Tens of thousands of copies of Paine's pamphlet were sold through all the states, and free thought and 'infidelity' permeated all ranks of society. 'The clergy attacked it, the colleges criticized it, but the populace read it.'² And not only the man in the street and on the farm for whom Paine had written, but also professional men and college students. Chancellor Kent reported that 'in his younger days there were few professional men who were not infidels; Ezra Ripley that a large portion of the learning not possessed by the clergy leaned to deism';³ and in the colleges many professors were tainted with the new philosophy as well as practically all of the students. The first president of the University of North Carolina, for example, gave up his Presbyterian ministry and became, in the words of a contemporary, 'an apostate and scepticized, and embraced the wildest principles of licentiousness'.⁴ Many other professors, less prominently placed, similarly surrendered 'their belief in Christianity as a divine system';⁵ and among the students irreligion reigned. In Yale the College Church all but

¹ Beard, Charles A. and Mary, *op. cit.*, vol. 1, p. 449.

² Riley, *op. cit.*, p. 89.

³ *Ibid.*, p. 93.

⁴ Paschal, Geo. W., *History of Wake Forest College*, vol. i, p. 12.

⁵ Thwing, Chas. F., *A History of Higher Education in America* (1906), p. 243-6.

went out of existence because of neglect; in Harvard free-thinkers organized themselves into societies; and in William and Mary a pious student of the time wrote that 'in every educated young man whom I met I expected to find a sceptic, if not an avowed unbeliever'.¹

The deistic meteor fell to earth during the first decades of the nineteenth century. The immorality and lawlessness precipitated among the people brought protests from the Church, the State, and leading citizens. An intellectual religion, deism failed as an ethical system for the average citizen. Moreover, it proved too cold, too impersonal, lacked a continuing enthusiasm, made no provision for satisfying the craving of humans for emotional excitement, and promised nothing after death. Religionists soon recognized these weaknesses and initiated a series of vigorous and continuous revival meetings throughout the country. So fervid were these missionary efforts that in time all but a small fraction of the people penitently returned to the churches.

The ideology behind deism was not, however, to disappear. The Victorian era in the United States continued through a long period of high religious interest, but sappers and miners with new labels carried on the work of cutting into the underpinnings of the churches. Science had already demonstrated that the earth was not the centre of the universe, and now it proceeded to promote the theory that an understanding of this world and not of the next constitutes the centre of man's proper interest. The industrial revolution similarly contributed to the undermining of religion, since it substituted optimism and a belief in progress in place of Roman Catholic Thomism and the doleful Calvinism which permeated most of the protestant sects. 'God may have made the world,' Bertrand Russell points out, 'but there is

¹ Tewksbury, *op. cit.*, p. 60.

no reason why man should not make it over.'¹ This outlook on life became widely popular, and the new machine technology furnished the tools for the rebuilding in unprecedented and startling abundance. Added to these assaults upon religion from pure and applied science, literary and theological scholars—particularly those in German universities—questioned the authenticity of the scriptures to which Protestantism, at least, looked for its sanctions. Furthermore, prominent leaders of thought abandoned organized religion; and seeking a revised code of living, many social philosophers joined Emerson who 'casually put Jesus and Socrates on the same level'.²

To follow these forces and their secularizing effects upon American society is not possible in this brief discussion. Enough to cite them before moving on to a review of the steps finally taken to sever the links between religion and government and to bring about the secularization of education. Three steps of particular consequence made the states and the United States independent of religion. Because of the ideas which the separatists and the deists had put into circulation, the initial step came naturally and without great difficulty. The first amendment to the Constitution significantly relates to religion: 'Congress shall make no law respecting an establishment of religion, or prohibiting the free exercise thereof. . . .' This basic legal interdiction proscribed a national state religion and prepared the way for the second step: similar actions upon the part of the states. Virginia passed Jefferson's 'Bill Establishing Religious Freedom' in 1786, and other states followed her example, although Massachusetts held out until 1812 and Connecticut until 1818. In both of these states the Congregational Church had official status which it gave up much more

¹ Russell, B., *The Scientific Outlook* (1931), p. 152.

² Ruley, *op. cit.*, p. 146.

reluctantly than the five states in which Anglicanism had been the legally established religion. The third step came in the eighteen-forties when the states in self-protection passed constitutional amendments forbidding the division or diversion of public funds to religious institutions. Supreme Court rulings during the same period similarly constrained the national government.

AMERICAN SOCIAL PRESSURES

In addition to European and world-wide influences upon American higher education, several movements peculiar to America should be explored. The most important of these movements—for this discussion at least—converged to produce political and educational democracy. This section will, therefore, be confined to a discussion of the rise of democracy and its educational implications.

Until the middle of the nineteenth century America could not be called a democratic country. Both in politics and in education the privileges of participation were almost entirely reserved for the upper classes. Although a small percentage of the more talented from the lower economic and social brackets succeeded in making educational opportunities for themselves, the vast majority were unable even to secure free elementary education. During all previous centuries these aristocratic arrangements had prevailed, but the maturation of the democratic ideal during the first decades of the eighteen-hundreds brought the common man into his own both politically and educationally.

The long struggle for political democracy and the suffrage is too well known to be retold here. Suffice it to say that until and during the Federalist period the 'well born' and the 'wise, the rich, and the good' controlled the Government. Religious and property qualifications for voting were in

effect in all states, and the Constitution as then interpreted, writes Professor Beard, 'was essentially an economic document based upon the concept that the fundamental private rights of property are anterior to government and morally beyond the reach of popular majorities'.¹ Jefferson early in his career had fought against suffrage restrictions. In 1778 he led the victorious fight in the Virginia Legislature for voting privileges for all white male adults. In time other states followed. By 1828 enough states had liberalized their suffrage laws to make possible the election of Jackson, a very much more democratic leader than Jefferson, and except for women and negroes, political democracy became a fact throughout the nation.

Simultaneously with the campaign for suffrage a demand arose for democracy in education. Schools partially supported by taxation had been established in Massachusetts by the legislation of 1647, but they made little provision for the children of the growing number of industrial workers. Everywhere—even in Massachusetts—education was considered to be a privilege and not a social necessity. To spread educational opportunities to all the people, several groups of individuals began campaigns on different fronts. Each contributed important elements toward success, and by the end of the Civil War in the North and by 1890 in the South democratic education on all levels had been achieved.

Political liberals entered the educational lists during the last decades of the eighteenth century. In 1779 Jefferson presented a bill to the Virginia Legislature calling for the establishment of common schools and colleges supported by the State. The bill failed, but his adherents succeeded in writing into the Ordinance of 1787 an educational pro-

¹ *An Economic Interpretation of the Constitution of the United States* (1913), p. 324.

vision which set aside the sixteenth section of every township in the new states in the north-west territory for the maintenance of schools and two whole townships, each six miles square, for the establishment of universities. 'Religion, morality, and knowledge being necessary to good government and the happiness of mankind,' the Ordinance declared, 'schools and the means of education shall forever be encouraged.' This great charter not only embodied the principle of democratic government in the new states, but it also established education as a fundamental responsibility of government.

The Ordinance furnished a legal basis for the natural democratic tendencies of the frontier. Even a hundred years before the clash with England the frontier had been a flourishing seed-plot of democracy. By the time of the outbreak of the Revolution there had developed 'a distinct belt of democratic territory extending from the back country of New England down through western New York, Pennsylvania, and the South',¹ throughout which the pioneer 'held with passionate devotion the idea that he was building under freedom a new society, based on self-government, and for the welfare of the average man'.² He conceived 'the welfare of the average man' to be considerably more than the franchise and economic individualism. 'As he dwelt among the stumps of his newly cut clearing, the pioneer had the creative vision of a new order of society. . . . He declared that his children should enter into an heritage of education, comfort, and social welfare, and for this ideal he bore the scars of the wilderness.'³

The frontiersman sought to satisfy this craving for a better world chiefly through education. The Ordinance of 1787 had made provisions for the establishment of schools and

¹ Turner, F. J., *The Frontier in American History* (1920), pp. 247-8.

² *Ibid.*, p. 275.

³ *Ibid.*, p. 263.

colleges, and the new states promptly wrote educational articles into their constitutions. Ohio first took advantage of the federal land grants of the Ordinance by establishing Ohio University in 1803. Michigan, Indiana, and Illinois followed, all promoting in their basic laws the cause of education 'ascending in regular gradations', to quote the Indiana Constitution of 1816, 'from township schools to a State University, wherein tuition shall be gratis and equally open to all'.¹

These legal provisions were epoch-making not only because they committed the new states to educational programmes at public expense, but also because they set up standards which the eastern states followed in subsequent decades. Perhaps even more importance should be attached to the fact that they set up a *unitary* system of education. Predominantly the educational programmes in the eastern states had been organized after the dualistic European model: one school system leading to higher education, the other available to the lower classes and limited to elementary education. The frontier states passed over this class-conscious plan and set up a single educational system leading from the elementary school to the university and open to the children of all the people. This pioneer concept of education in time came to dominate the entire United States.

While political liberals and frontiersmen carried on in their own theatres of action, the powerful humanitarian movement lent its vigorous support to democratic education. The zeal of these idealists led by Channing, Parker, and Olcott derived from the eighteenth-century protest against the doctrine of the natural depravity of man. Locke, Rousseau, Godwin, and a score of other thinkers had declared the essential excellence of man when unshackled

¹ Turner, *op. cit.*, p. 282.

from vicious institutions,¹ and the humanitarians followed the logic of this dictum by setting out to reconstruct American life.

Practically every department of social endeavour in the new nation came under their scrutiny and brought forth their programmes for betterment. A group of them under the leadership of Garrison and Phillips attacked slavery and helped precipitate the Civil War. Another organized the temperance movement. Another launched the first American peace societies. Still others worked for educational equality for girls and young women, for the education of the blind and the deaf, for the better treatment of the insane, for prison reform, and for a score of other social improvements too numerous to be listed. Education came in for its share of attention, and to some of the leaders this avenue of reconstruction seemed the most promising of all. Emerson, the lodestar of the movement, remained aloof from participation in most of the adventures for reform, but he spoke often and loudly for education. He stated his position when he wrote 'What we call root-and-branch reforms of slavery, war, gambling, intemperance, is only medicating the symptoms. We must begin higher up, namely, in education.'² Many of his contemporaries agreed with this judgment, and they did much to create the great body of public opinion which established almost five hundred colleges between 1810 and 1860,³ and which pushed through legislation for the public support of common schools and the establishment of State universities. Horace Mann, Henry Barnard, and their contemporaries owed their inspiration and their success chiefly to the humanitarian impetus.

Attention must also be called to the contribution which

¹ Farrington, V. L., *Main Currents in American Thought* (1927-1930), vol. II, p. 252.

² Emerson's *Works*, II, p. 136.

³ Only 220 of these colleges became permanent.

Germany made to the democratization of lower-school education. In the inventory which the leaders of Prussia made of their resources after the humiliating Treaty of Tilsit, they eagerly struck upon education as their chief means of salvation.¹ For more than two centuries common schools had been in existence in Germany, inspired by the Lutheran reformation and under the control of the civil authorities. Upon this foundation Frederick William III, inspired and assisted by such able leaders as Johann Fichte and Wilhelm von Humboldt, built an educational system which soon Europe and America acknowledged to be the best that the world had yet seen.

The German schools, it is true, were not democratic in the sense that democracy is understood in America. They were, however, open to the children of all the people regardless of their economic and social status, and it is that fact which engaged the eager attention of American educators, humanitarians, and statesmen. Germany through education had arisen from the devastation of the Napoleonic wars to become the intellectual leader of Europe. If such a great transformation could happen in Germany, why not in America? Thus the question was felt, if unphrased, and thus the example of an aroused and regenerated people speeded on the democratization of American education.

In the fight for free schools the under-privileged labouring man of the fast-growing cities also played his important part. The coming of the franchise and the launching in 1827 of the first unified American labour movement² gave the working man a voice in government for the first time. The movement set up two major social objectives: leisure and education. Many years of agitation were required to estab-

¹ Reisner, *op. cit.*, pp. 210, 215 ff.

² Commons, J. R., *History of Labour in the United States* (1918), vol. 1, pp. 185 ff.

lish the ten-hour day (6 a.m. to 6 p.m. with an hour for breakfast and another for noonday dinner) ¹ even for women and children, but in their educational demands labour made more rapid progress. The scandalous status of children in the factories drove their parents to organized action for relief. Children 'seven years old and upwards' were regularly employed 'from dawn till eight in the evening', and in 1833 it was estimated that in the United States a million children between the ages of five and fifteen attended no school. The next year a labour publication placed the number of illiterate children throughout the country at a million and a quarter.

These unhappy conditions drove the unions to place education 'distinctly and definitely at the head of the list of measures' which they urged upon State legislatures.² In all the industrialized centres of the east they campaigned vigorously for free schools and for candidates who would support them. They went to the polls with their new ballots, and they contributed the chief strength toward the passage of the 1834 public school law in Pennsylvania, the 1842 ordinance in New York City, the 1849 legislation in New York State, and similar laws in other states. Too frequently the part of labour in bringing about universal education in the United States has been overlooked, but Commons seems to be on firm ground when he writes that 'for our great public school system of to-day . . . we owe a large if unrecognized debt of gratitude to . . . the working class'.³

After the Civil War democratic education rapidly pushed its way into a *fait accompli* through all the states of the Union. The efforts of two centuries had produced political democracy, and close upon its heels came the acceptance

¹ Commons, *op. cit.*, vol. i, pp. 158-62, 174-5

² *Ibid.*, p. 224. ³ *Ibid.*, pp. 327-8.

of the principle of free schools. Many currents of thought—chiefly the political, pioneering, humanitarian, Germanic, and economic as described—converged to overspread the nation with a new atmosphere. Pounded by these furious gales, aristocratic education lost its grip, and publicly-supported schools and colleges became thoroughly established as the most characteristic of American institutions. A number of leaders of American education have recently pointed out that America has fallen far short of the ideal of democratic education, particularly on the level of higher education. Their statements and their facts will be assessed later in this chapter, but, regardless of their well-founded criticisms, the fact remains that during the nineteenth century all American life, education included, shifted from a predominantly aristocratic to a predominantly democratic emphasis.

TWENTIETH-CENTURY AMERICAN HIGHER EDUCATION

This chapter has been concerned thus far more with the social history of the United States than with higher education. This has been so by design. Most of the individuals who are currently writing about the problems of American colleges and universities seem to be relatively uninformed concerning the social pressures that remade American society in the nineteenth century, and their comprehension of higher education is therefore inadequate. Colleges change with the society in which they live. Every one admits American higher education to be defective, and it is a good sign that a healthy spirit of criticism prevails. Our problems will not be answered, however, by following Flexner, who would have us scuttle our three centuries of history to follow the organizational plans of pre-Nazi German universities; nor by following Hutchins who would

revert to the curriculum of the Middle Ages;¹ nor by taking seriously Foerster, who would turn back the clock to the practices of the Renaissance.² Such programmes fail to take into account the nineteenth-century history of American higher education. One may admit the validity of their critiques, yet one must of necessity postulate that education in America will follow the lines laid out for it by the cultural history of the American people. How that history has changed the structure, content, and emphasis of American colleges and universities constitutes the present section of this chapter. Only the high spots can, obviously, be touched upon, and these will be discussed under the four headings: Organization, Control, Curriculum, and Clientele.

Organization: Both historically and currently the core institution of American higher education is the four-year college. It has no parallel in European education and cannot logically be defended as a desirable organizational structure. It includes in its first two years many courses of instruction which are unmistakably part of secondary education. It includes in its last two years much instruction that is professional and specialized. Whether or not the college will continue in its present form is a question about which American educators talk and write continuously.

A particular four-year college may be one of a dozen or fifteen varieties. The historic four-year college is a liberal arts institution organized for general education beyond secondary education. The great majority of independent four-year colleges are of this type, but in State universities other varieties of four-year colleges exist: colleges of agriculture, engineering, veterinary medicine, nursing, library science, pharmacy, etc. To most of these institutions

¹ Hutchins, Robert M., *The Higher Learning in America* (1936).

² Foerster, Notman, *The American State University* (1937).

students are admitted immediately upon graduation from high school. Their formal general education ends at this point, and their specialized education begins. The situation is a result of the insistence by the public upon the establishment of institutions which their sons and daughters may attend for utilitarian or vocational instruction. The motives of students who enter them are not cultural in the sense of *Bildung*. Rather they seek specialized training with which to enter more lucrative occupations.

Four-year colleges are flanked on one side by the junior college and on the other side by graduate schools and professional schools. The junior college is a relatively new development in American higher education. Indeed it is not generally considered to be higher education at all but rather an advanced type of secondary education. Stimulated at the end of the nineteenth century by President Harper of Chicago, the first permanent and independent junior college was established in Joliet, Illinois, in 1902. Since that time almost five hundred and fifty other junior colleges have come into existence. The majority of them are publicly supported and associated with high schools. Many, however, are privately supported, and many are separately housed as independent institutions. Most of them devote their energies to general education. Some, however, are junior colleges of technology and of several other specialties. Their enrolment doubled between 1928 and 1935, and their number increased 25 per cent. during the same period. Since 1935 at least thirty other junior colleges have been established. The statistics of 1935, which are the latest published, listed 214 public junior colleges with an enrolment of 82,701 students, and 305 private junior colleges with an enrolment of 39,610 students. It will be observed that while publicly-supported junior colleges are fewer in number than privately-supported

junior colleges, they enrol over two-thirds of the junior college population of the country.

Over half of the privately controlled institutions are supported by religious denominations: Methodists, 41; Baptists, 36; Roman Catholics, 26; Presbyterians, 19; Lutherans, 16. At least 27 junior colleges are negro institutions.

Within the past few years a new type of junior college has come into existence—the four-year junior college. The first of these was apparently established at Stephens College in Missouri, an institution for young women. Stephens has been established as a regular junior college for many years, and it is now attempting to take over the last two years of high school, thus creating a four-year junior college at the end of which general education terminates. The Stephens College experiment has not been successful, although it continues. The University of Chicago, however, has recently followed the same pattern, and it may be that because of its great prestige it will succeed. President Hutchins of the University of Chicago has administratively allocated the last two years of the University High School and the first two years of the College to the direction of one administrator with the title of the Dean of the College. William Rainey Harper, when he became a co-founder of the present University of Chicago in 1893, divided the four-year college into two parts: the first two years he called the junior college and the last two years the senior college. Aware of the long-brewing theory that secondary education and university education should be clearly distinguished, he made the attempt to separate general education from specialized education by this device. In all essential particulars, however, undergraduate instruction at the University of Chicago operated as it had operated historically in other four-year colleges.

President Hutchins, however, following closely the logic

of the situation is seeking to make the end of the sophomore year the recognized institutional terminus of general education. To implement this point of view he has brought together the last two years of the high school and the first two years of the college. It has been suggested that before long the University of Chicago will grant its baccalaureate degree at the end of the sophomore year. If this happens, and if the University of Chicago is able to develop and maintain such a baccalaureate degree, the future structural organization of American higher education will be profoundly influenced and in time tremendously changed. The Stephens College experiment could not be greatly influential because of its relatively limited prestige, but the University of Chicago venture, if it succeeds, will, because of the standing of the institution, tremendously change all American higher education.

What will happen, under such circumstances, to the four-year junior college is, of course, a moot question. The two-year junior college has meanwhile thoroughly established itself as an important part of American education. The number of such institutions is growing rapidly and is likely to continue to grow. Because of their growth, four-year colleges, and particularly four-year liberal arts colleges face such vigorous competition for students that the continued existence of many of them looks doubtful indeed. Only the fact that most eastern medical schools and law schools require four years of undergraduate education for admission stands in the way of the complete triumph of the junior-college idea. Should these professional schools of Harvard, Yale, Columbia, and other such institutions reduce this requirement to two years, the four-year liberal arts college would soon find itself all but squeezed to death between the junior college on the one hand and professional colleges on the other.

The students who graduate from junior colleges either go on to professional schools which require but two years of college work for admission, or they terminate their formal education at that point. Exactly the same courses of action are followed by the graduates of four-year liberal arts colleges. Further education beyond such general education is of two varieties: first, professional education, and second, so-called graduate education which is in effect specialized training for the academic profession or for professions which do not support specialized professional schools. The usual professional schools are law, medicine, dentistry, and theology. In fields other than these most professional education in the United States is done in undergraduate rather than graduate colleges. The great majority of students who desire to become engineers enter engineering schools immediately upon graduation from high school. Only a small percentage of them first go to liberal arts colleges and then to engineering schools. The same is true of students seeking training in business administration, veterinary medicine, nursing, and almost all other specialized occupations which require advanced training. Only law, medicine, dentistry, and theology require some college work as a pre-requisite for admission.

Graduate schools on the other hand insist upon four years of liberal arts college work for admission. In graduate schools students prepare for the so-called learned professions and for careers in chemistry, geology, and other fields which require specialized training beyond undergraduate education. Originally the graduate schools chiefly prepared professors, but American industry is at present drawing upon them for trained workers as much if not more than the professoriate. A man who surpasses in English literature or in renaissance history cannot, of course, look to industry for a career, but men in the sciences and the social sciences

are able frequently to choose between academic and industrial opportunities. The graduate school, therefore, must be recognized essentially as a training school for men and women who are interested in those numerous careers whose portals are not guarded by specialized professional schools.

In general, graduate students in American universities seek Master's degrees and the degree of Doctor of Philosophy. Originally the Master's degree in the United States was given to any graduate who three years after his graduation wrote a thesis and demonstrated his moral stability. The degree now, however, is granted only for work in course. Essentially it is a departmental degree. An individual matriculates in a graduate school and elects to do his work in chemistry or English literature or history. If he meets the requirements of that department, his professors recommend him to the university for a master's degree. Usually one of the requirements is the writing of a thesis. The same situation prevails for the doctorate of philosophy except that candidates are required generally to do three years of graduate work rather than one.

With rare exceptions the doctorate of philosophy in all American universities is also a departmental degree. Several attempts are being made to set up both the master's degree and the doctor's degree as recognitions of highly advanced work in general education. It is not now possible in the United States for an individual who seeks to carry on his general education beyond the undergraduate college to secure academic recognition for his advanced work. Instead, if he wants a graduate degree, he must specialize in some particular subject-matter and meet the requirements of that specialized department. There are many in America, however, who believe that college teachers in particular should have opportunities for broad advanced learning

rather than for specialized advanced learning. Attempts are being made both at Harvard and Yale to meet this situation, but the experiments being tried are so new that it is too soon to pass judgment upon them.

A movement is also under way in the graduate schools to protect the integrity of the doctorate of philosophy as a degree demonstrating ability to do research. The first Ph.D. granted in the United States was given by Yale University in 1861. In 1876, the year of the establishment of Johns Hopkins University, 18 Ph.D.'s were conferred. In 1900, 342 were granted, and in 1935, 2,588. It is quite obvious from these statistics that the doctorate of philosophy has grown tremendously in popularity; it has become in most colleges the *sine qua non* for acceptance as a college teacher and also for acceptance by industry—particularly in chemistry and geology. This movement is associated with the movement to establish a broad rather than a specialized doctorate. Some institutions are experimenting with the Ed.D. degree, i.e. Doctor of Education, to be given to men who plan teaching rather than research careers. At present this degree is not popular. Most people consider it to be an inferior degree, and while it is so judged few will be willing to gamble their futures upon it. That something very much needs to be done, however, to provide broader general education than is now provided by American universities is patent. Similarly, every student of American higher education recognizes the need of protecting its integrity through advanced specialized instruction for scholars.

Control: Contrary to the situation in many other countries, no national system of higher education exists in the United States. Colleges and universities are controlled by states, by municipalities, or by private groups organized as boards of

trustees. The state and municipal institutions are supported by public funds included in the annual or biennial budgets of the governmental units which control them. In general, their tuition rates are lower than those of private institutions, but only a few of them have accumulated large endowments. The private institutions, on the other hand, depend entirely upon benefactions and tuition fees. Some of these institutions, by European standards at least, are immensely wealthy: Harvard, Yale, Columbia,¹ and Chicago each have trust funds well over one hundred million dollars and annual budgets running near the ten-million-dollar mark. None of them, however, finds its income sufficient for its programme, and continuous efforts are made by all institutions to increase their resources.

The relationship of higher education to religious organizations seems no longer to be a pressing problem in the United States. All the colonial colleges and many of those established during the early nineteenth century under religious influences have dropped their denominational ties. Meanwhile, other institutions (Hopkins, Clark, Stanford, and others) have come into existence without either religious or governmental associations. American higher education is predominantly secular, even though many private colleges, particularly those in the Middle West and South, continue their denominational affiliations. Except for the Roman Catholic colleges and universities one may expect that in time the denominational ties of most colleges will slowly lose their significance. Many will protest this prospect, but the history of the nation seems to suggest that development, and unless an unanticipated religious revival grips the country and modifies the spirit of the

¹ On 21st November 1938 the *New York Times* reported the resources of Columbia and affiliated institutions to be \$158,868,638, and its budget for the last fiscal year to be \$15,756,444.

future, problems of control will be of two sorts: first, the relationship of the State to private institutions, and second, the relationships of private institutions to wealth.

The first of these problems has been continuously under discussion since the first decades of the nineteenth century. Established religion and private institutions fought the state universities for fifty years, but none the less state universities pushed forward because of their low tuition rates and because they offered instruction in subjects which the private colleges refused to admit into their programmes. The land-grant colleges in particular swung the tide in favour of publicly-supported education. These institutions were established by grants of land from the Federal Government to the states in 1862, and they are required by law to offer instruction in agriculture, engineering, and military science. The story of the land-grant colleges is one of the most fascinating in the history of American education, but, unfortunately, it can merely be referred to here. All that can be said of them is that they made available broader curricula, and by their example stimulated virtually all institutions to admit large numbers of students unequipped for or disinterested in purely literary studies. This development has not, of course, gone unchallenged, and within the past few years Foerster has severely castigated the state universities for their materialism, their emphasis on quantity rather than quality, and what he believes to be their subversion of democracy. Foerster's book, however, has attracted but scant attention. This is not to say that his criticisms are unwarranted. It rather means that public opinion does not rally much to his support. One can justifiably wonder whether or not it soon—or ever—will.

The critics of the state universities take them to task more effectively on another count: their financial advantages because of low tuition rates and their extra support in the

way of new buildings from the Federal Government during the depression. The president of a small middle-western college recently voiced the opinion of many heads of private institutions when he deplored the fact that the state universities are draining away students from private colleges and universities because of their low tuition rates. That they are doing just that has been demonstrated during the past depression-ridden decade. If the trend continues, many poorly-supported private enterprises will be forced to shut their doors, and a movement to restrain the state institutions will undoubtedly gather strength and perhaps be effective. The fact that benefactions to private colleges have failed to hold up during the depression has added fuel to the fire of opposition. Whether or not their wings will be seriously burned only time will tell. At present over 50 per cent. of the students in American colleges and universities attend state institutions, even though private foundations many times outnumber them.

The problem of the relationship of private institutions to wealth has many facets, but in this discussion one is of particular significance. Briefly stated it is this: does entrenched wealth control the private institutions of higher education? In 1923 Upton Sinclair, social crusader better known perhaps in Europe than in America, published his book *The Goose-step* in which he demonstrated to the satisfaction of many Americans that the colleges are controlled by the wealthy men who sit on their boards of trustees and who, controlling financial policies, dominate educational policies. Sinclair's book created considerable stir which, in some circles, has not died down.

Which side one takes on this issue depends, in general, upon two questions—whether or not one teaches a controversial social science and whether or not one is a militant member of the American Association of University Professors

or the American Federation of Teachers. If one could find an unbiased commentator he would probably observe that academic freedom is occasionally outraged by wealthy trustees, but that by and large the men of wealth who sit on boards of trustees leave the administration of their institutions to presidents who come, in general, from conservative backgrounds. If wealthy men dominate the colleges, it is because all American culture is dominated by wealthy men. The control of private institutions will presumably not change unless they become state institutions under a vastly different social philosophy from that which now dominates the United States. When the economic organization of American society changes—and more than likely not until then—the control of private colleges will shift from the hands of men of means.

Be this as it may, the control of American higher education is closely associated with its sources of income. One cannot, therefore, discuss the relationship of wealth to higher education without commenting upon the benefactions made by men of large wealth and by philanthropic foundations established by them. Philanthropy has been assisting higher education in America since Harvard received its name because of a bequest in 1638 from the Reverend John Harvard of about four hundred pounds and a library of two hundred and sixty volumes. Gifts to education and particularly to higher education constitute the major item in American philanthropy. Of the \$469,917,923.60 given by American foundations during the decade of 1921-30, 43 per cent., or \$223,000,534.21, went to education and most of this total to colleges and universities.¹ A recent study made by Professor Ernest V. Hollis, of the College of the City of New York, has estimated that higher education in America has benefited by gifts from the

¹ Lindeman, Edward C., *Wealth and Culture* (1936), p. 20.

foundations to the sum of \$680,000,000. Of this sum, Professor Hollis reports that 64 per cent. has been contributed by the foundations established by John D. Rockefeller and Andrew Carnegie.¹

The foundations, because of their great financial strength, have done much to influence the direction of higher education. Among other things they have chosen a few of the large universities for their major gifts, as indicated by the following summary of gifts listed by Professor Hollis:²

	DOLLARS
University of Chicago . . .	46,240,767
Carnegie Institute of Technology . .	26,521,354
Johns Hopkins University . .	22,763,348
Columbia University . . .	22,309,148
Vanderbilt University . . .	21,355,655
Yale University . . .	15,731,032
Harvard University . . .	12,114,146
Cornell University . . .	11,636,269
Duke University . . .	11,100,429

These statistics are not complete since they include only the gifts made by the large foundations. They are, however, indicative of the trend of the major foundations to give the bulk of their money to a few institutions. Thus Trevor Arnett, long the president of the General Education Board (one of the Rockefeller foundations) reports that 'more than half of the endowment of the privately supported institutions is held by 3.0 per cent. of them.'³

Considerable sums are made over to colleges and universities by wealthy and well-to-do individuals who have no connections with foundations. Much of this money is

¹ *The Christian Science Monitor*, 12th January 1938.

² For an excellent review of the work of the foundations, see: Hollis, Ernest V., *Philanthropic Foundations and Higher Education* (1938).

³ Arnett, Trevor, *Observations on the Financial Condition of Colleges and Universities in the United States* (1937), p. 22.

given by graduates who have a sentimental attachment to their *alma mater*. Indeed, benefactions from *alumni* constitute the largest source of income for all institutions of American higher education except those controlled by the State. Some state universities also receive large gifts from their graduates, the University of Michigan in particular receiving large bequests from its *alumni*. So important are the gifts of *alumni* that practically all institutions conduct annual financial campaigns among their graduates. Last year, Dartmouth College, one of the institutions which has not been especially favoured by the foundations, collected in the neighbourhood of \$110,000 from among its *alumni*. Comparable sums have been collected by this institution for the past twenty-five years. This is a remarkable total for a relatively small institution, since even Yale and Harvard, with several times as many *alumni*, do little better. The important part which *alumni* play in the life of American institutions of higher education is directly related to their financial support. They pay the piper and they are often accused of calling the tune.

The state governments support the state universities, and the municipalities the municipal universities. Meanwhile the Federal Government continues to make grants to the land-grant colleges for resident instruction, for agricultural research, and for agricultural extension service. The total of these grants during the last fiscal year amounted to \$28,252,583, of which \$4,530,000 was for resident instruction, \$6,232,500 for research, and \$17,490,083 for extension service. Annual increases in these grants have been authorized for a number of future years under the Bankhead-Jones Act of 1935.¹

These data indicate that aside from tuition and other charges made upon students and their parents, American

¹ *Report of the Advisory Committee on Education* (1938), pp. 144-5.

higher education has four major sources of income: gifts from foundations, from private individuals including *alumni*, from states and municipalities, and from the Federal Government. The private institutions receive no financial assistance from governmental units, and indeed most of them have recently become seriously concerned about the trends of taxation of local governments. At the same time they are alarmed at the taxing of private wealth by the Federal Government and by the states, and many an administrator of a private institution views the future with alarm. Discussing both of these problems James Rowland Angell had this to say just before his retirement from the presidency of Yale:

'This assault takes two general forms: one, the attempt of local governments to impose real estate and other taxes upon endowed institutions which are tax exempt by legislative enactment. . . . Most communities now making these efforts originally offered bonuses of one sort or another to attract the institution . . . and, furthermore, that the presence of the institution results in the expenditure of very large sums of money in the community which otherwise would go elsewhere. These considerations wholly disregard the moral and intellectual value of a college to a community. . . .

'The second threat to endowed institutions from taxation arises from the relentless impositions on income and on legacies of benevolent individuals, two sources from which the endowed institutions have in the past secured a large part of their essential resources. . . .'¹

Europeans, whose institutions are in general not tax-free, and whose income from benefactions is relatively small, will, perhaps, be amazed by the relative wealth of American institutions of higher education. The future, however, looks much less bright than the past, for the reasons which President Angell has discussed. In terms of the

¹ Angell, James Rowland, *American Education* (1937), pp. 194-5.

democratic, or near-democratic, commitments of American colleges and universities, and also in terms of the relative newness of their large-scaled educational and research enterprises, American colleges are likely to need more money rather than less. Whether they shall have more, or even as much as at present, remains to be seen. Meanwhile a summary of endowment and income expansion since 1900 states the history of the recent past: Arnett reports¹ that 'endowment of all institutions has increased from \$166,000,000 in 1900 to over \$1,500,000,000 in 1934'. Judd reports that annual receipts for current operations increased from \$40,554,000 in 1900 to \$567,618,000 in 1930.²

Where the control of American higher education will lodge in the future depends upon the political and economic destiny of the nation. Originally the control rested with religious denominations. It has since been predominating in the hands of both the state and private boards of trustees. The states, assisted by the Federal Government, have been slowly becoming more powerful in higher education. Whether they will eventually use their taxing power to dominate if not actually control the huge and wealthy as well as the small and modest private institutions remains to be seen. He who can predict the future of American political and economic organization can also predict the future control of higher education.

Curriculum: Until about the time of the Civil War the liberal arts college curriculum completely dominated all American higher education. Educational and civic leaders, however, saw the need of instruction above the high school in utilitarian subject-matters. They clamoured long and

¹ Arnett, *op cit.*, p. 22.

² Judd, Charles H., *Recent Social Trends*, Wm. F. Ogburn, Editor (1933), p. 372.

loud and in time succeeded in establishing institutions where curricula other than the liberal arts college curriculum were taught. In 1824 Rensselaer Polytechnic Institute opened its doors as the first American engineering school. Rensselaer began and has continued as a four-year undergraduate engineering college. Several dozen other engineering colleges of the same pattern have since joined Rensselaer to provide instruction for students ambitious to be engineers.

The establishment of these institutions raised questions in the minds of liberal arts college educators, and in 1826 Amherst established a so-called scientific course parallel to its liberal arts course.¹ The Amherst experiment was not successful, but Harvard, Yale, Princeton, and Dartmouth followed on the same road and similarly established parallel scientific courses. Eventually all disappeared because of the rise of specialized four-year colleges and also because of the spread of the elective system.

The elective system has since been abandoned in the United States, and in its place has come the system of majors which may briefly be described as a plan of concentration in one or two departments especially during the junior and senior years. The elective system, however, played a very important part in the development of American higher education. To it may be given the chief credit for the breaking of the stranglehold which the classics had upon the liberal arts college. Under the old dispensation, before the days of the elective system, colleges were essentially literary institutions. They called themselves such, and all students were required to take four years of Latin and four years of Greek. The elective system killed this arrangement and made it possible for the modern lan-

¹ Porter, Noah, *The American College and The American Public* (1878), pp. 10-11.

guages and the sciences to find places in the liberal arts college curriculum. In time the social sciences were also admitted into the liberal arts fold, and thus to-day the curriculum of the liberal arts college provides for instruction in all the well-established divisions of knowledge.

Meanwhile, as hereinbefore indicated, specialized four-year colleges have come into existence to provide instruction for students who have terminated their formal general education and who seek to become agriculturists, nurses, veterinarians, etc. Most of these vocational colleges require some liberal arts college work such as English composition, a foreign language, perhaps some mathematics, and some science. Just what each college requires depends upon its curriculum and the extent of its belief in the desirability of further general education for its embryo specialists.

The curriculum of all types of colleges is by no means hardened into finality. Changes are being made continuously, and almost every college periodically overhauls its curriculum either because a new president takes office and sees the need of changes or because the demands of students and of their parents are so insistent that changes must be made. A good deal of very effective work is being done in the reorganization of the curricula of the specialized vocational colleges. It is possible for these institutions to determine fairly accurately what knowledge and what skills are necessary for successful practitioners in their specialty. But in the liberal arts college the situation is much more complex. These colleges are presumably not training specialists but are seeking to graduate broadly-educated men and women. What constitutes a broad education Americans find it difficult to agree upon. Thus the faculties of liberal arts colleges are pulled hither and yon by divergent philosophies of education. The old disciplinary theory of education propounded so brilliantly by the Yale faculty in its

1827 Report continues to dominate the thinking of many liberal arts college professors. This theory has been pretty well discredited, but most faculty members, trained as specialists in their own particular fields, are not well informed of the history of educational ideas and some of them continue to defend this and similar out-moded points of view.

At the same time new points of view are coming up for continuous discussion. Two of these are so important that they should be explored here briefly: first, the desirability of survey courses; and second, the need of curricula adapted to the abilities and goals of individual students.

Survey courses—sometimes called orientation courses—have been set up to break down the minute departmental lines that came into existence with the growth of intense specialized instruction. Many American educators are of the belief that the knowledge of students should be co-ordinated and that it is more important to give a student a co-ordinated understanding of related subject-matters than to give him intense work in one or two fields. Thus in 1914-15 Amherst College established what is generally regarded to be the first college survey course.¹ Since that time, dozens of other institutions have established similar programmes. Two of these are especially worthy of mention: the survey courses called 'Contemporary Civilization and Humanities' at Columbia College and the four survey courses taught to freshmen and sophomores at the University of Chicago—the physical science course, the biological science course, the social science course, and the humanities course. At Chicago these courses are taught during two full years, and faculty members who teach them attempt to correlate the subject-matters within their broad fields. Thus, in the course in physical sciences, astronomy is related to physics, chemistry, geology, and the other physical

¹ Johnson, B. Lamar, *What About Survey Courses?* (1937), p. 6.

sciences. The student who takes these courses may not have the detailed knowledge of any one science, but the defenders of the survey course insist that he has a broader understanding of the nature of the world in which he lives and thus is able more intelligently to cope with the problems of twentieth-century society.

The survey course idea seems at the moment to be somewhat in eclipse. The President of the University of Chicago has himself condemned the plan, although it is still in operation because most of his faculty members defend it. It would be interesting to review Mr. Hutchins' disapproval of the survey course idea in detail. Suffice it to say that he has become enamoured of two other ideas which seem likely to have less vogue than the survey plan. These two other ideas are his recommendation that the college return to the trivium and the quadrivium of the Middle Ages¹ or that it adopt a curriculum built around approximately one hundred of the most important books written in the history of Graeco-European civilization. This latter curriculum has recently been established under his aegis at St. John's College, Maryland.

The second important new point of view concerning the American college curriculum is both more fundamental and more far-reaching than that which supports survey courses. Its proponents are urging upon their fellow educators that 'each student's self-education should constitute the controlling object of any educational agency that deals with him' and that four essential factors must be involved in the making of a curriculum for each individual student:

(1) A knowledge of the student's history and previous attainment—mental, physical, social—as exact and comprehensive as can be secured.

¹ Hutchins, *op. cit.*

(2) A carefully considered, provisional forecast of what the student probably can achieve and actively desires to attempt.

(3) Provision for (a) access to skilful teaching as the student, under expert personal direction, finds it needed, and (b) material facilities such as libraries, laboratories, and collections organized and administered primarily for the student's convenience in learning.

(4) Provision for (a) the recognition of cumulative progress in knowledge, measured comparably and comprehensively, and (b) the analysis and description of abilities, special traits and peculiarities in the use of knowledge, as well as of conspicuous qualities of character and disposition.

This statement, as well as the quotations used in this discussion, are taken from a recent publication of the Carnegie Foundation for the Advancement of Teaching, published in 1938 under the title of *The Student and His Knowledge*. This is one of the most important volumes published on American higher education in recent decades and should be carefully read by anyone who desires a thorough understanding of current curricular and examination practices in the United States. The authors, William S. Learned and Ben D. Wood, report therein the results of the Pennsylvania high school and college examinations of 1928, 1930, and 1932, which produced such spectacular and disconcerting results and which have stimulated widespread discussion of curricular problems throughout the nation. It is not within the scope of this chapter to report the nature or the results of these examinations. Emphasis must, however, be put upon the conclusions of the authors that the 'tyranny of the curriculum' must give way to a more complete understanding of the individual student and the building of a curriculum adapted to his personal needs—intellectual and social.

The authors summarize their philosophy in the following passage:

'The spread of actual achievement among students of equal scholastic status proves that uniform standards can have no applications. What, therefore, is the alternative? Is there any standard for educational dealings with a group, each member of which is unique as to both his point of attainment and his ability?

'Such a standard exists, but it is no longer a standard of content. Content, though as significant as ever, has become much too broad for precise stipulation in a formula. Nor is there longer a standard of uniform time measures on which the institution can make its reputation. It is precisely such pseudo-standards of quantity that the study of Pennsylvania colleges and many other studies have exposed. As measures of amount of education, they are worthless. They should be abandoned.

'Under such a scheme intended solely to foster the growth of each variable mind, the paramount standard is one which the institution holds unflinchingly not before the student but before itself: *it is none other than the standard of suitability which marks the treatment accorded to a student by the institution in view of his ascertained character and peculiar needs.* If genuine growth is to challenge a student's ability to its limit, the institution that tries to help him must know just where his intellectual horizon is. It must then make certain that the proposed extension of that horizon during four years of college experience is within the student's reach and, quite as important, it must be satisfied that he understands and really wants to achieve it.' (Page 46.)

This is a long passage, but the philosophy expressed in it is so important in American higher education, and so rapidly coming to be widely accepted, that of necessity it must be reproduced here. American educators are every year coming to think more insistently upon the problems of individual differences among students and the arranging of curricula suitable to the need of each student. This is not to

say that required or prescribed curricula have disappeared. In many places these traditional arrangements are deeply entrenched. One can with confidence report, however, that the movement supporting curricular provisions for the needs and abilities of individual students is gaining ground rapidly.

Clientele: Because of the rise of democracy, the impact of machine technology, and the growth of scientific knowledge and its results, the clientele of American higher education has changed from a constituency of pre-professional students to a constituency which includes students of many levels of ability with scores of divergent career objectives. The student bodies of American colleges before the Civil War were, by and large, planning to become clergymen, lawyers, physicians, or teachers. Few had ambitions to enter business or the technical pursuits of industry, agriculture, engineering, and so forth. Since the colleges offered instruction only in the classical curriculum, those with non- or neo-professional goals looked to apprentice training rather than to the colleges. This situation was untenable both to those who wanted to see the resources of the nation exploited and to the educators who believed that the college should serve the society which supported it. In 1842, therefore, President Francis Wayland of Brown University began a strenuous attack upon the limited curricular offerings of the colleges, and also upon the restriction of college enrolments. In a vigorous volume published during that year he wrote:

‘Nothing would tend so much to the progress of wealth among us as the diffusion throughout the whole people of a knowledge of the principles of science, and the application of science to the arts. And besides, a knowledge of moral and intellectual philosophy, of the fundamental principles of law, of

our own Constitution, of history, of vegetable and animal physiology, and of any of the sciences is just as necessary and just as appropriate to the merchant, the manufacturer, the mechanic, and the farmer, as to the lawyer, the clergyman, or the physician. Why should it be supposed that all higher knowledge should be engrossed exclusively by the professions?'¹

Eight years later, in a report to the trustees of Brown University, Wayland went further, and in a careful statistical study demonstrated that while the population of the country was increasing, the enrolments of the liberal arts colleges of the country were decreasing. He wrote: 'From these facts it would certainly appear that the number of those who are seeking collegiate education is actually growing less',² and he argued that 'the time would seem to have arrived when our institutions of learning are called upon to place themselves in harmony with the advanced and rapidly advancing condition of society'.³

Wayland fought for the extension of the curriculum and the inclusion of courses in agriculture, engineering, commerce, etc., that would meet the needs of a society rapidly becoming complex under the domination of science and technology. His point of view met with considerable opposition (some of which lingers on to this day), but he and his fellows won their point and, supported by democratic legislation, opened the flood-gates to tens of thousands of students in place of the thousands of his day. In 1862 Congress passed the Land-Grant College Act which led to the establishment of sixty-nine state colleges and universities. Simultaneously the state universities (some land-grant colleges and state universities are identical) began

¹ Wayland, *op cit*, pp. 154-5.

² Wayland, *Report to the Corporation of Brown University* (1850), pp. 29-31.

³ *Ibid.*, pp. 58-9.

to implement the democratic point of view and to admit large numbers of students who could not have been admitted under the old dispensation. Thus to-day a million and a quarter students are registered in American colleges and universities as compared with about sixty-five thousand in 1875. The rise began in about 1870 and has continued steadily ever since. The World War and its demonstrations to the public that trained men were in demand accelerated the curve, and since the War it has climbed steeply even during the depression. Indeed, the depression has served as a stimulus to enrolments in many institutions, particularly those controlled by the states and municipalities where tuition rates are lower.

Despite the spectacular spread of higher education in the United States during the past seventy-five years, economic considerations still actively operate to determine the clientele of colleges and universities. The Pennsylvania study, to which reference has already been made, demonstrated that many high school graduates who are ambitious to go to college and who have the ability to do college work are unable to continue their education for economic reasons. Similar studies have produced the same results. Toops, on the basis of a state-wide testing programme in Ohio, declared last year that from 12,000 to 17,000 of the 40,000 high school seniors graduating every year from Ohio high schools are able to do college work and that the majority of them cannot continue for lack of funds.¹ Other studies have demonstrated that many students going to college should not have been admitted, but since their parents are able to afford the expense, they are accepted and remain enrolled until they are dismissed for want of ability. Many, after much struggle, even manage to graduate.

¹ Toops, Herbert A., *Research Bulletin of the National Educational Association*, vol. xvi, No. 2, March 1938, p. 67.

If democracy may be defined as equality of opportunity in relationship to ability, then it follows from these facts that American higher education is not democratic, or at least only partially democratic. Many students with high ability are not able to continue their education beyond high school and many others with insufficient ability are able to clutter up the colleges because their parents can afford to give them the social advantages of college associations. The situation is, however, far from hopeless. On the one hand efforts are being made to give assistance to the able but needy, and on the other hand selective devices are being set up to weed out the unfit.

The first of these enterprises is not new except in so far as the Federal Government has recently contributed. Since their earliest days American colleges have sought to give worthy students financial aid. Such aid is generally of three varieties: scholarships, loans, and assistance by means of part-time employment. Every American college helps its students in one or more of these directions and has from its establishment. The sums available for scholarships are particularly large, especially in the long-established eastern institutions.

To assist able students in their efforts to enter and continue in college some of the states offer scholarships either for work in private institutions (New York State) or for work at the state university (Wisconsin and others). These state scholarships are generally, however, very small, and when the depression came many educators pointed out the need of Federal assistance. Thus in 1934 the Roosevelt administration set up what has since come to be called the National Youth Administration which, among other functions, helps college students to earn money toward their expenses. The National Youth Administration thus provides work rather than scholarships. In the neighbourhood of a

hundred thousand students are employed in the colleges at which they are registered at work selected and administered by the colleges themselves. Undergraduate students can earn up to \$20 a month, but the average for each institution must be \$15 a month per student. About 10 per cent. of the students registered may each year be chosen for such work opportunities. Graduate students under twenty-five may earn up to \$30 a month, but their average must be no greater than \$25 a month. In this enterprise the Federal Government is annually spending about \$21,000,000.

That Federal aid is helping many able students to continue their education has been many times demonstrated by studies which have reported that the academic performance of N.Y.A. students is superior to that of students who receive no such assistance. Many other studies have similarly publicized the superior work of students who are employed at part-time jobs while carrying on their studies. Writing of these facts at the University of Minnesota, Dean John B. Johnstone gives the following statistics:

'In 1931 to 1935, of the children of the well-to-do, 42 per cent became successful students and 6.5 per cent secured honor standing. Of the children of the poor, including those who received federal aid, 58 per cent became successful students and 15 per cent secured honor standing.

'For many years students earning their own way have taken up and used all available private employment.

'In 1936-37 the University had, in addition to these, about 1,300 students receiving federal aid. Without federal aid about 1,300 self-supporting students would have been denied higher education. Yet from this group has come the highest ratio of good students. More than twice as large a percentage of them as of the students from well-to-do families have gained places on our honor roll.'¹

¹ *The Minnesota Alumni Weekly*, 15th May 1937.

It does not follow from these statistics, of course, that all the children of poor families are able and that they are being denied higher education. Nor does it follow that the children of the well-to-do are crowding the colleges. It does follow, however, that more abundant aid should be available to capable young people and that stricter selective devices should be employed to keep out the unfit no matter whether they be rich or poor. Efforts are being made in both directions: Scholarships and Federal aid (although far from sufficient) considerably improve the situation, and selective devices are becoming more and more common. Because of the impetus of the Pennsylvania and other studies selection will more than likely be much more exact within the next decade.

The problem of selection is not, however, simple. Those who hold to the belief that colleges should be open only to the aristocracy of brains fail to take into consideration that much American higher education to-day is vocational and that selection should be based upon devices which fit the pattern of each variety of college. Liberal arts colleges must select for the abilities that are needed for arts colleges, and colleges of engineering, veterinary medicine, and the other colleges with immediate vocational goals should select for the abilities which students must have to be successful in their curricula and the careers for which they prepare. This point of view seems to have escaped many educators who assert that too many students are going to college or who recall the Jeffersonian *aristoi* concept.¹ Jefferson proposed a rigid selective system by means of which the intellectual aristocracy, regardless of their economic status, would be 'raked sedulously from the rubbish'. In recent years it has become the style, among some educators, to

¹ Chinard, Gilbert, *Thomas Jefferson, The Apostle of Americanism* (1929), p. 96.

quote Jefferson and to insist that colleges should admit only the intellectually superior. These individuals, however, seem to overlook the fact that American society needs men and women who, perhaps mediocre in abstract intelligence, are excellently qualified to become capable engineers, pharmacists, agriculturists, and so forth. The liberal arts college—as the institution which devotes its energies to cultivating broadly educated men—must, of course, seek out the intellectually superior; but the vocational colleges must obviously select those with the different constellations of abilities needed in their fields of activity. When this point of view is more widely understood the problem of selecting college students will be considerably simplified and the techniques of selection more easy to develop.

Meanwhile we must face the fact that higher education in America has been but imperfectly democratized. We can call American education democratic when we are perfectly sure that the 41·4 per cent. of our elementary school graduates who do not go on to high school and the 87·3 per cent. of our high school graduates who do not go on to college are unfit for further education; and when—on the other hand—we are certain that the 58·6 per cent. who go to high school and the 12·7 per cent. who go to college are precisely those who ought to go. Until our selective devices are exact enough to lead to such certitude, and until our financial aids are abundant enough to provide education for all who are qualified, America cannot be called educationally democratic.

Conclusion

Despite the length of this chapter it has obviously been inadequate. American higher education ramifies in so many directions and its problems are so numerous and so complex that no one has the scholarly range to encompass more than

part of it. As observed hereinbefore, an individual writer can in such a discussion as this merely hit the high spots, and the high spots which he chooses must of necessity be those which seem to him most important. Yet, regardless of who might have written this chapter, two statements would still be pertinent. One is from President Hutchins of the University of Chicago, who was recently reported to have observed that if the political and economic jumble in Europe continues, 'American universities will soon be the finest in the world despite themselves'. The other is a judgment written by Lord Bryce:

' . . . if I may venture to state the impression which the American universities have made upon me, I will say that while of all the institutions of the country they are those of which Americans speak most modestly, and indeed, deprecatingly, they are those which seem to be at this moment making the swiftest progress, and to have the brightest promise for the future. They are supplying exactly those things which European critics have hitherto found lacking to America; and they are contributing to her political as well as to her contemplative life elements of inestimable worth.'¹

Bryce wrote this statement before the turn of the century, and when he published a new edition of his great work in 1915 he made this addition to his original observation: 'The European observer can express now with even more conviction than he could twenty years ago the opinion that they (American universities) constitute one of the most powerful and most pervasive forces working for good in the country.'² If Bryce were alive to-day and still commenting upon American life, he would more than likely reiterate and perhaps make even more enthusiastic his judgments of fifty and twenty-five years ago.

¹ Bryce, James, *The American Commonwealth* (1915 edition), vol. ii, pp. 741-2.

² *Ibid.*, p. 762.

PART II: THE BRITISH DOMINIONS

The Universities in Canada

R. C. WALLACE

UNIVERSITIES, like other institutions, owe much to the circumstances of their origin. In Canada four separate and distinct movements have had their share in the founding, and the growth, of universities. Out of these movements and influences it has come about that the Canadian university life has had, and still retains to some extent, a distinctiveness and separateness which on the whole has made for a more vigorous and stimulating intellectual life than might have been the case had a single system of university culture been developed throughout the length and breadth of the land. The strands in university life go back in their origin to the history of the development of the country.

Canada, as far as white settlement is concerned, was first a French settlement, in what is now the province of Quebec. From the descendants of this people, still mainly in Quebec, but as well in scattered settlements throughout the Dominion, have come the French Catholic universities, which have retained their identity to the present time. The early English settlers, both in the Maritime Provinces of Nova Scotia and New Brunswick and in Upper Canada (now Ontario), were predominantly of Anglican faith. From them came the Church of England colleges, supported in part by British subvention. This was before the day of responsible government in Canada. Presbyterians, Methodists and Baptists found the Anglican institutions too exclusive for

their needs, and there grew up colleges to suit the wishes of the non-Anglican communities in Upper Canada and the Maritimes. As the newer provinces were carved out of the North-West Territories, the institutions which were best adapted to serve these new communities in their cultural needs were found to be state universities, modelled in considerable measure after the great state universities of the American Middle West.

Thus we find, at the roots of Canadian higher education, and in historical sequence, the Roman Catholic, Anglican, non-Anglican Protestant, and state colleges or universities. In great measure the division lines have now been blurred, and the initial functions have been fulfilled; but there are still the marks of origin. With the exception of the Roman Catholic French-speaking universities, the support of the churches has now almost disappeared; and religious tests for staff or students have completely disappeared. But a certain quality is left. The institutions preserve an individuality, not so apparent, it may be, to the visitor as to the Canadian. It is a matter of atmosphere; and atmosphere means much in the realm of educational values.

The four types of university deserve further elaboration.

French-Canadian Universities

Laval, the first bishop of Quebec, established the Grand Séminaire of Quebec in 1663, a hundred years before the cession of Canada to Great Britain. In 1852 a royal charter was obtained, giving the right to the institution to confer degrees, under the name of Université Laval. Later a branch was established in Montreal, which has now become an independent institution under the name of the University of Montreal. A large number of classical colleges, scattered through the province of Quebec, are affiliated with Laval University and the University of Montreal, which have

gradually become professional institutions built on the liberal education of the classical colleges. The universities provide the way through to the Church, Law, Medicine, and the Applied Sciences.

In Nova Scotia Saint Francis Xavier College was established in 1855, in New Brunswick St. Joseph's College in 1864, in Ontario Ottawa College and Regiopolis College (Kingston), both in 1866. In Manitoba St. Boniface College dates back to 1818. It is now a constituent part of the University of Manitoba. Other French-speaking colleges have been established both in eastern and western Canada; but they have not exercised the right to confer degrees.

In these universities and colleges the emphasis has been on language, philosophy, and religious education. The sciences have been introduced at a late stage in the course, and have been treated, until recent years, less as laboratory subjects than as textbook and classroom disciplines. The rapid development of industry in the province of Quebec has brought about a change in the place of sciences in the curriculum. In this respect the French-speaking universities have now much closer relationship to the other Canadian universities than was previously the case. There are to-day many scientists of good training and high ability among the French-Canadian people. It still remains true, however, that the distinctive quality of French-Canadian higher education is in literary values, artistic appreciation, and religious philosophy.

Church of England Colleges

In Nova Scotia, by act of a legislature in 1789, King's College was established at Windsor. It obtained university powers in 1802, under the control of Church of England authorities. It enjoyed an imperial grant until 1835. There were various attempts to secure affiliation with Dalhousie

University, which grew up, as we shall indicate, out of protest against the exclusive character of King's. Ultimately an arrangement was reached, and King's College is now in Halifax, an important constituent factor in the life of Dalhousie University.

In New Brunswick, King's College of Fredericton received a royal charter in 1828, and took over the work of the earlier College of New Brunswick. In 1859 the name was changed to the University of New Brunswick, religious tests having previously been abolished.

In Quebec, Bishop's College was incorporated in 1843 at Lennoxville and obtained a royal charter in 1853.

In Ontario, King's College was established by royal charter in Toronto in 1827. As a result of the bitterness of the fight against sectarian privileges, these privileges were abolished in 1849 when the institution was reorganized as the University of Toronto, a non-sectarian university. Trinity College was then established (1852), and this institution later, in 1903, entered into the federation of the University of Toronto. Huron College in London became in 1878 Western University, now the University of Western Ontario.

In the west, St. John's College, Winnipeg, was founded in 1866, and became part of the University of Manitoba in 1877.

In keeping with the tendency of the times, these institutions, founded independently, have enlarged into universities of non-sectarian character, or have affiliated with such universities as are non-sectarian, while retaining their own administration and special character. Bishop's College, which remains somewhat more independent in character, has a working affiliation with McGill University, which from the beginning was non-sectarian. Notwithstanding the fact that these wider functions have been assumed by the

institutions of Anglican origin, they have left their imprint on Canadian life in the link which they created, and have maintained, with the Oxford and Cambridge college traditions, on which they were modelled. Not only so, but to a greater extent than has been the case with other educational institutions in Canada, they have drawn on men trained in the English tradition for their staffs, and in this way have contributed to Canadian life men who have played their part in a still wider field than university education. The Anglican institutions have made their affiliations, but they have a special quality which remains to-day a distinctive feature of Canadian higher education.

Other Denominational Institutions

Both in the Maritimes and in Upper Canada the organization of the Anglican colleges was too narrow and restricted to serve the needs of the growing population of men and women of Presbyterian, Methodist, Baptist, and Congregational faiths. It was a somewhat bitter chapter in Canadian history when the rights of the non-Anglicans were being urged on the legislature of Nova Scotia, and on the British Government for Upper Canada. In the latter area a battle was fought on the question of the clergy reserves, public domains which had been set aside by the legislature for educational purposes, and claimed by Church of England educational authorities for educational institutions under Anglican control. As no satisfactory arrangement seemed to be possible either in Nova Scotia or in Upper Canada, the protesting denominations set about the task of establishing their own institutions. Dalhousie College was founded in Halifax in 1821 from funds at the disposal of the lieutenant-governor. It was granted university powers in 1841. The Presbyterian influences were too strong to satisfy all the dissenters, and in 1839 a Baptist institution

was opened at Wolfville. Originally known as Queen's College, its name was changed in 1841 to Acadia College. In 1842 the Wesleyan Methodists established Mount Allison Academy at Sackville, New Brunswick. It received university powers in 1858.

In Ontario the Methodist Church of Canada founded Upper Canada Academy in Cobourg in 1836. A charter was obtained in 1841, and the name was changed to Victoria College. In 1884 Victoria College federated with the University of Toronto and moved from Cobourg to Toronto. A royal charter was obtained in 1841 for the establishment of Queen's College in Kingston, under the auspices of the Presbyterian Church in Canada. Queen's University elected to remain outside affiliation and in 1912, by act of the legislature, removed itself from any denominational control. In 1887 Toronto Baptist College and Woodstock College were united under the corporate name of McMaster University, operating as a Baptist university in Toronto. McMaster University moved to Hamilton in 1930. Albert College was established in Belleville in 1866 by the Methodist Church, and has had affiliations with Victoria University.

In the west, Manitoba College was founded in Winnipeg by the Presbyterian Church in 1871, and Wesley College by the Methodist Church in 1888. They are now united, and affiliated with the University of Manitoba. Brandon College has given arts and theological training in Brandon for the Baptist Church, affiliated with McMaster University in Hamilton. St. Andrew's College, a constituent part of the University of Saskatchewan, and St. Stephen's College, in similar relationship to the University of Alberta, now serve as residential colleges for the United Church of Canada in the provincial universities, and give theological training for the students in divinity for this Church in these provincial centres in western Canada.

As is the case with the Anglican college, the denominational responsibility has practically disappeared to-day in the administrative set-up of the institutions which have been listed under this section. They have federated with non-sectarian universities, they have remained independent but divested of sectarian colour and relationship, or they fill a special purpose of residential and theological institutions in the campus of provincial universities. But the distinctive note of independence and freedom has remained; and that contribution is felt to-day in intellectual circles in Canada. The universities which were under the wing of the Presbyterian Church in Canada—Dalhousie and Queen's—were modelled on the Scottish system, in close sympathy with the University of Edinburgh. The Scottish tradition and outlook on education have been maintained in these two universities. They have provided a link with Scotland as the Anglican colleges have with Oxford and Cambridge. The Methodist and Baptist colleges have had relationships, because of denominational affiliations, with the United States. Acadia and McMaster Universities, in particular, have established connections with the strong Baptist communities in the New England States. Canada is in the fortunate position to gain from educational experience in Great Britain and in the United States. The denominational affiliations under which the higher institutions of learning were established in Canada—Anglican, Presbyterian, Methodist, Baptist—have assisted, each in its own way, in making those two worlds of educational experience available to the Canadian people.

The Provincial Universities

In the process of federation of the colleges in Toronto, and in the building up of new institutions in western Canada to serve the needs of a growing pioneer population, the plan

of provincially supported institutions, with characteristics similar to those of the state universities in the middle-western states, found congenial ground on which to grow. The typical provincial universities in Canada are the universities of Toronto, Manitoba, Saskatchewan, Alberta and British Columbia. Other universities, such as Queen's and Western Ontario, receive provincial support; but they are not in the category of provincial universities. In the provinces of western Canada, the provincial universities are the only degree-conferring institutions. They have the whole field, and they have associated with themselves, either as constituent colleges in a federated system, or as junior colleges doing the college type of work in the junior years, the other centres of learning which had originally established themselves under denominational support. In this work agricultural education naturally plays a large part. The Ontario Agricultural College at Guelph is affiliated with the University of Toronto. In the western universities there are faculties of agriculture within the university system, and the university farms are in close proximity to the university buildings. In extension services among the adult population these universities have played a notable part. Supported as they are by public funds voted by the legislatures, they have conceived it to be their responsibility to assist the people of the provinces to which they are individually related in their intellectual aspirations and their technical needs.

The federated University of Toronto came into being in 1887. The University of Manitoba, which had been established in 1877, adopted a similar federated system in 1917. In general principle, in both institutions the method of federation of the University of London was followed. The ordinance for establishing the University of Saskatchewan was passed in 1903. The University of Alberta

opened its doors in 1908. The University of British Columbia began to function in 1915. For sixteen years before this university was formed, the McGill University College in Vancouver and in Victoria, affiliated with McGill University, served the needs in higher education.

In the method of function and scope of work, the influence of American universities has been greater in the western Canadian provincial universities than anywhere else in the Canadian university system. In Michigan, Wisconsin, and Minnesota it had been already demonstrated that a state institution of higher learning can serve the needs of the people of a state in ways which had not been within the vision of the older universities, less responsible to public demand. There was the same agrarian consciousness on the western prairies as in the middle-western states. Many of the settlers were from across the line to the south. There was the urgent need, in the founding and building up of new institutions, to obtain the warm support of the people of the province. Wisconsin and Minnesota provided the models for Saskatchewan and Alberta. In these two institutions in particular the teaching of university students is only a part of the function of the university.

This classification of Canadian universities, in their historical development, into the four categories of French-speaking colleges, Anglican colleges, non-Anglican Protestant colleges, and state universities is somewhat arbitrary and inadequate. It accentuates differences, which, it is true, are historically significant, but are not so apparent under the conditions of our time. The sharp distinctions have now been rubbed off, or lost in newer affiliations. The institutions of learning serve a common purpose in a country which, while not yet in all respects united in purpose, has enjoyed Confederation for over seventy years. The differences

which are developing, and will continue to develop, in the university system in Canada will be conditioned rather by the needs of the particular constituency which the university may serve than by the religious affiliations in which the institution took root.

But, like all classifications, the one which has been adopted here fails as well in not being completely adequate. One university—McGill University—does not fit in. It is neither sectarian nor provincial in its historic affiliations and present relationships. It is the Canadian example of the privately endowed university, of which there are outstanding examples in the United States. James McGill of Montreal left a bequest in 1813 for the founding of an institution of learning in Montreal. The Royal Charter was obtained in 1820 and the college was opened in 1829, the Montreal Medical Institute throwing in its lot with the college and forming the medical faculty. The university has remained a private institution, English-speaking in a province predominantly French. Macdonald Agricultural College, at Ste. Anne de Bellevue, founded through the munificence of Sir William Macdonald, became the agricultural faculty of the university. Affiliations were established with Bishop's College at Lennoxville, which grants its own degrees, and for a relatively short period, as has already been indicated, McGill University sponsored the work of higher education in British Columbia. It has remained, throughout its history, the Canadian example of an institution of higher learning which has been supported by private generosity, irrespective of church connections. Protestant colleges give theological training to students for the ministry, in affiliation with the university.

So much for the background. It will be evident, from the bare statistics which have been given, that Canada, with a

population of less than eleven million people, has been well provided with institutions of higher learning. Even when considered as universities which give degrees in their own right, and not under the wing of some higher institution, Canada can boast of at least twenty universities, five of which are French-speaking. If there were to be added those institutions which retain their own management but have affiliated with other universities in the awarding of degrees, the number would be more than tripled. Two years ago the records show that 48,497 students were registered in Canadian institutions of post-high-school standing. This represents more than 4 per 1,000 of the population of Canada—a remarkably high proportion. Of this number approximately 33,000 are enrolled for university work—3 per 1,000 of the Canadian population. This number is made up of 26,000 men and 7,000 women. Looked at in another way, practically 3 per cent. of the young people growing up in Canada to-day become university graduates.

This high figure is all the more interesting when the fact is kept in mind that the assistance which students in Canada may obtain to help them to meet the costs of university education is very limited. There are no national scholarships available for university students, and very few provincial scholarships; while the number of scholarships which the universities can offer is very small in comparison with the financial support which able students in Great Britain, Australia, and New Zealand can obtain. Any estimate of the percentage of Canadian students who obtain financial support by bursaries or scholarships can only be taken as a personal judgment. That judgment would be that not more than 5 per cent. of the students registered in Canadian universities hold bursaries or scholarships. It is significant that such assistance is almost invariably won as a result of

ability shown in examination. There are practically no bursaries on the basis of financial need alone. The feeling is growing that more money must be made available to assist able students to go to university. The provisions of the British North America Act, by which the responsibility for education is placed on the provinces, prevents the federal authorities from acting without due circumspection in this matter. The Dominion Government has, however, assisted in the furthering of technical education in Canada, having given grants on a 'dollar for dollar' basis to the provinces for the erection and the operating of technical schools throughout the Dominion.

Students come up to the universities in Canada from the secondary schools maintained at public expense and controlled by the Departments of Education of the provinces. There are very few private schools in Canada, and, although some of them are of high standard, they play a relatively small part in the secondary educational systems. Admission is on the junior matriculation standard (three to four years of high school) or on the senior matriculation standard (four to five years of high school). The university system is built round the arts course, with the professional courses organized as faculties in the university, entrance to which necessitates as a rule one or two years of arts (including pure science) education. In McGill University, entrance to medicine is on the completed arts course or its equivalent; in other universities it makes less heavy demands on a liberal arts background. Agricultural education, which in the earlier planning was in some of the provinces separate from and independent of the university, is now a constituent part of university work, even where the agricultural college is separate from the university geographically, as it is in Ontario and Quebec. The Canadian plan is to liberalize professional training by close contact and direct relationship

with the arts college. Schools of commerce, for example, are built up on an arts curriculum with special emphasis on economics, politics, and industrial history. In the arts course proper, the curriculum is planned on either a pass or an honours standard, the latter usually, though not invariably, requiring an additional year beyond the time requirement for a pass degree. Only the abler students are admitted to the honours course, the numbers varying, with the varying conditions of the individual universities, from 15 per cent. to 30 per cent. of the whole student body in the arts faculty. Graduate requirements for the Master of Arts degree demand at least one year of work after an honours Bachelor of Arts degree has been obtained.

Some universities have several professional schools, others only one or two. This depends on local needs and historical backgrounds. The provincial universities feel the responsibility of providing training for a variety of professions; the more independent institutions give their attention to those professional faculties in which they are respectively most interested and which they are best fitted to conduct. All but a few of the Canadian universities provide for graduate work to the stage of the Master's degree in arts and pure science. Graduate schools for work beyond the Master of Arts level, such as have developed so outstandingly in the larger American universities, are found in Canada only at the University of Toronto and McGill University, and in special subjects at Queen's and the University of Manitoba. Canadian students avail themselves in large numbers of the opportunities which American graduate schools present; and many who go to the United States for graduate work remain there in positions which may offer better prospects than anything which may be available for them in their own country. The National Research Council at Ottawa has done much to assist in

building up substantial graduate work in Canada in the pure and applied sciences by providing bursaries, scholarships and fellowships to selected men and women who show promise in research work in science. These awards are held in the Canadian universities or in the laboratories of the National Research Council at Ottawa.

The Junior College plan of organization, which has been developed in the United States, more particularly in the western states, has found favour in Canada also mainly in the west. In this plan colleges which may find a more useful field in restricting themselves to the junior years of university work, become affiliated with a university as junior colleges. They maintain their own organization and administration, financial and educational. Their students sit the examinations of the university in the subjects of the first and second years in arts and pure science. When they have completed this standing, they go on to the university for the senior studies. The college is represented on the senate of the university. The university, in its turn, makes conditions with reference to the standard of the library, laboratory equipment, and qualifications of staff before affiliation is granted. This has proved to be a useful method for utilizing the resources of several smaller denominational colleges. Only in one case—that of the University of Saskatchewan—has the organization been carried completely into the university proper. In that university the junior college is under the administration of a dean, and certificates are issued to students who have successfully completed the work of the junior college. There is a wider function which the junior college is beginning to perform. Around the nucleus of academic subjects there may be grouped, in junior college centres, a wide variety of subjects in which young people may be interested—music, art, drama, and the like. There are indications that the junior colleges may

prove to be centres of educational inspiration to many students who have no intention of going on to university for an academic degree. In Canada the system has found most favour, up to the present time, in Saskatchewan. More limited use of this type of organization has been made in Alberta and British Columbia.

The Canadian system, on the whole, is based on intramural work and on examinations conducted by the institution in which the student is registered. External examinations are practically unknown. There is a fairly general acceptance of transfers from one university to another among the English-speaking group of universities. The French-speaking universities have curricula based on language and Catholic philosophy; and the equivalences in transfer are more difficult to assess. There is a general agreement among the universities that students who are not permitted to continue at their own university because of low academic standards are not admitted to another university in the Canadian group. There is, in other words, a reasonable approximation to equivalence of standards among the universities. Queen's University has done a special service for teachers throughout the Dominion by carrying on an extra-mural system of correspondence tuition for the subjects of the arts course, with the condition that approximately half of the subjects have to be taken intramurally before the degree is awarded. For students of greater maturity, with strict limitations as to the number of subjects which may be taken at one time, and under the regular examination system of the university, this plan has been found to be valuable in raising the academic standard of the teaching profession. The residence requirements may be met by summer school attendance.

Summer schools have become a regular feature of the work of Canadian universities. Teachers welcome the

opportunities that they afford. By summer school attendance the degree requirements may be met, even though the time involved may be long. But they fill a place not for degree purposes alone. They are of value as refresher courses. Around them, and at other times during the vacation period, there is growing up a multiplicity of refresher courses and special courses designed to assist professional men and women to keep abreast of the newest thought in their field, and to encourage to more active thinking in subjects which may have little or nothing to do with professional activity. The time and opportunity is available to the Canadian universities owing to the fact that the academic work of the year is not based on a three-term system, as in England, or on a four-term system, as in many of the universities of the United States. The academic year is organized on a two-term basis. The universities are free from the academic routine from June until September. They have made good use of this opportunity to build up special summer schools, refresher courses, conventions of professional bodies, and all the extension services which have become part of the routine of the modern university.

The responsibility of a university is primarily to its own students, in their undergraduate and graduate work, and to some degree in their later professional and intellectual progress. But in the adult work which is now becoming so much a part of the function of educational institutions, universities, in Canada as elsewhere, do not confine their attention to their own graduates. Reference has already been made to the widespread extension services of the provincial universities, more particularly in Saskatchewan and Alberta. The contact is first through the agricultural interest; but it has widened to include intellectual and aesthetic aspirations among all classes and conditions of people. The University of Toronto has sponsored the

Workers' Educational Association movement in Ontario, and has conducted evening classes in a great variety of subjects, several of which are on the university curriculum. Credit is given for university diploma purposes in such subjects as are recognized by the university. The W.E.A. movement, while not as important a factor in the intellectual life of the labour groups in Canada as it has been in Great Britain and the Antipodes, is a growing force, and is gradually spreading from Ontario to other provinces. Queen's University gives courses for bankers and chartered accountants by the extra-mural method, and these courses are made use of practically from coast to coast. McGill University has placed special emphasis on aesthetic appreciation in its extension work. The Canadian Handicrafts Association owes much to the enthusiasm and energy of the director of the extension service of McGill University. St. Francis Xavier University in Nova Scotia has achieved great success in organizing co-operative organizations and study groups among the lobster fishermen of the northern coast of Nova Scotia. Through the initiative of the university, the industry has been put on a sound basis by co-operative enterprise; while at the same time stimulus has been given to the groups to study economics and history and other subjects of their choice. The methods of the directors of extension services are many and varied. They deal with situations as they arise; and they are not hampered by precedent. There is a growing tendency, however, to work through study groups which form spontaneously to discuss the particular subject in which they may be interested. They carry on through their own intellectual resources; but from time to time the expert is needed who may help the group by his wider knowledge and sounder background. It is here that the university man is of assistance, and it is only to this extent that universities may wisely enter into the adult education

field. In its essence it must be self-education. The Adult Education Association of Canada serves as a unifying agency for the many factors, including the universities, which are now active in the field of adult education.

In any consideration of the subject of higher education in Canada there are some questions that present themselves. What is the particular quality and flair of the Canadian student? To what extent is he influenced by background and environment? In particular, is he American rather than British? Does the system under which he has been trained owe more to the British than to the American educational experience? These are reasonable questions, but they are by no means easy to answer with adequate concreteness. One may only give an individual opinion and judgment. The following observations are offered in that sense.

Canada is a pioneer country. Its inhabitants have had, and still have, the task of wrestling with the natural resources of the country and of bending them to the service of man. For this task resoluteness, adaptability, and keen practical sense are needed. The early pioneers came to this country because they were attracted by this kind of challenge. They had the qualities. Their descendants, each in their own generation, have found pioneer work to perform. There has always been a 'last west' or a 'last north' to lure the adventurous spirits. Young men, in their summer vacations from university, go into the wilds and take their share in the hardships of the survey parties. Not infrequently they are in charge; and they must be ready for the emergencies that may arise. Young women go out to teach school or do nursing and social service work, under conditions which test their courage and endurance. It was inevitable that under these conditions the Canadian student

should display a keen practical sense, an interest in pure science and particularly in its applications, and an inventive flexibility of mind which has turned his interest to applied science and to the professions which have a scientific background. On the other hand, literary taste and philosophical enquiry have not been cultivated to the same degree. They are fruits which ripen later in pioneer climates. The philosophy of pragmatism has possessed the United States and Canada, for it has been a philosophy which suited a practical people faced with practical jobs in a new continent. James has had the field in psychology, and Dewey in its repercussions on education. Methodology has greater appeal than philosophy in the educational realm—the machinery of teaching method and its psychological background rather than the philosophical foundation on which the process of education is built. We are known by our fruits, and that which succeeds is right. No other approach than the pragmatic could be expected in a country where things had to be done, and done quickly. It is, under the conditions, the sound attitude. The danger—and it is a real danger—is that short-distance views may be taken in the appraisal of results. In the judging of ends it is well to cultivate the long-distance vision.

When, therefore, an appraisal is made of the extent to which higher education in Canada has been influenced by the experience of the United States, it must not be forgotten that there is a common climate and common geographical conditions. Much of what is alike is shared from a common background rather than transmitted across a boundary line. The grain of the country runs north and south, not east and west, and Canada is a North-American country. There is the constant interchange between universities across the boundary line. There are the conventions in which Canadian and American attitudes on common problems are the main

subject of discussion. There is a school system which was taken over from Massachusetts into Ontario and into Nova Scotia, and was later adopted by the other English-speaking provinces of Canada. There are features in the structure of educational administration—credits, junior college organization, the machinery of extension service and the like, which are taken over from American university practice. There is as well much in student life—the fraternity system, the organization of college athletics, to name two examples—which has been taken over by the Canadian student from the American university. The radio, the films, and the magazines which students hear and see and read, are predominantly of American origin. Students go to American universities for graduate work, and return to staff positions in Canadian institutions of learning.

It is not surprising that higher learning in Canada has so much that resembles higher learning in the United States. The interesting fact is that there is much that remains different. The links with Britain have not been broken. Staff appointments are made by preference of Canadians with experience of British universities rather than of American institutions. If Canadians are not available, men of British birth and training are usually chosen, and not Americans. Many students go to British universities for their graduate training. Medical men in Canada visit the British clinics. British methods and aims in education make on the whole a greater appeal than do those of the educational systems in the United States. The National Council of Education has made possible the visits of many distinguished British educators to Canada. Some of the universities, as has been pointed out, have close ties with England or with Scotland. The world consciousness of the Canadian student, linked as it is with both hemispheres through the British Commonwealth of Nations, is more spacious than that of

his American neighbour, whose problems are more particularly those of the two Americas. In a word, blood still counts; and Canada, if it has the wisdom to use its choices aright, has an unrivalled opportunity, educationally speaking, to make the best of both worlds.

A word may be permitted, in closing, on the interest and influence of the Canadian student in public affairs. He has not committed himself, as yet, to world-shaking movements. Here his temper is that of the British or the American student, rather than of the European or Asiatic young men in their university years. Not that Canadian students eschew politics. Many in all the Canadian universities are active on behalf of the party which they have espoused. But they have not hitherto acted, in any impressive way, as a Youth Group. There may be changes in the air. Last Christmas (1937) a conference of Canadian students was held in Winnipeg to discuss the major social, political, and religious issues with which young men and women in Canada are confronted. They did some constructive thinking, and they carried back the stimulus to their respective student bodies. In so far as Canadian students have espoused political movements, the most active groups have advocated socialistic policies. One would hesitate to say that these groups represent the opinion of the majority of the Canadian students. Those who hold other opinions have been, at any rate, less vocal. The interesting, and very encouraging, observation that can definitely be made is that Canadian students are greatly interested in world affairs, and in the means of establishing a reasonable peace among the nations of the world. The ablest and keenest minds are in the international relations clubs. They have no illusions; but they have a will to devote themselves to a task which thus far baffles solution. From coast to coast, on the seaboards and in the heart of the prairies, there is an interest and an

accuracy of knowledge which surprises the visitor. Young Canada is world-conscious. That, too, is a gift received from geography and history. The position which Canada occupies in the North-American continent and the membership which she holds in the British Commonwealth together create problems which will become increasingly difficult to solve. It is well that young men and women of ability in the universities of this country are conscious of the situation, and are preparing themselves, in the acquiring of knowledge and in the exercise of judgment through discussion and debate, to play their part in guiding the destinies of their country when, with the turn of the years, these destinies will be in their hands.

The University in South Africa

JOHN E. ADAMSON

The Historical Background

THE most striking feature of higher education in South Africa to-day is dualism, the duplication of university institutions. It had its origin in the sturdy individualism and independence of the main constituent European races, British and Dutch. Their rivalry goes a long way back. It was inevitable when in the expansion of Europe the two became competitors in the field of colonial adventure. It reached a climax in naval battles in European waters.

It was continued in the political field after the British came into possession of the Dutch settlement at the Cape of Good Hope. That happened as an incident of the Napoleonic wars in 1806, after more than 150 years of Dutch rule. So that by a strange turn of fortune's wheel the rivals and foemen were destined to become fellow-citizens. It is a far cry from the beginnings of the colonial expansion of Europe southward and eastward via the Cape to the dualism of university institutions. But the trail is there, plainly to be seen in South Africa's history.

To follow it in detail would be impossible in an article like this. Reference may, however, be made to a few crucial events. The transition from Dutch to British rule, difficult in any case owing to the virility of the rival races, was made still harder by the fact that the Dutch settlement at the Cape had been relatively free from European control. The

decision of the British Government to abolish slavery, leaving altogether on one side the vexed question whether it had any field of application in South Africa, was interpreted as interference from outside in the economic relations between the settlers and their native servants; interference, that is, in a sphere where there had been local autonomy. Political tension, inevitable from the beginning, led to rupture. The Great Trek of the malcontents from Cape Colony, after less than a quarter of a century of British rule, led to the foundation of the two Dutch republics in the north.

After some thirty years of segregation of the trekkers and their descendants, the discovery of the diamond fields in the north of Cape Colony and the gold fields of the Witwatersrand brought about a renewal of contacts and an intensification of friction, now economic as well as political. The result, as all the world knows, was the tragedy of the Boer War and the end of the Dutch republics.

This political eclipse of one of the rivals was but temporary. The grant of responsible government to Transvaal and the Orange Free State in 1907 led to the return to political power of the Dutch. There followed an easing of tension and a growth of co-operation. In the incredibly short period of three years after the grant of responsible government, what had been the two northern and inland republics and the two southern and coastal colonies were united as provinces of the Union of South Africa.

This miracle of political adjustment was too good to last, even in this young land where in Kipling's phrase 'no wrong bites to the bone', and the next twenty years saw a new cleavage. This time it started or at any rate developed in the cultural field. Article 137 of the Act of Union had entrenched the principle of the statutory equality of English and Dutch as official languages. The translation of this

principle into practice in official life and in the consequent routine of the schools led to another period of tension. Meanwhile Afrikaans, the form of Nederlands which had developed in South Africa, went ahead on a wave of enthusiasm and vitality. The result, inevitable in any case, and no doubt at bottom healthy, has been the parallelism, the duality of our university institutions.

The steps by which that cultural climax has been reached will be described in the next section. Meanwhile a further step in political evolution, this time in the direction of unity, must be noted. It was inaugurated early in the present decade, 1930-40, by a decision to bring together the then opposed political groups. The decision was well timed. The Statute of Westminster had made each of the sister Dominions of the British Commonwealth of Nations mistress in her own house, and so had satisfied the deep-seated desire of the Dutch for autonomy. The result has been a central United Party. Political unity has been achieved, so that the two main political streams are now joined in a current set in the direction of a unity of nationality. In the university field parallelism will for a generation at all events remain. It can and no doubt will be transcended, however, by convergence on ideals of culture and humanism.

GROWTH OF UNIVERSITY INSTITUTIONS¹

(a) *In the South*

The university inside Europe began as an agency for the revival and nurture of what we now call classical culture, threatened with extinction in the chaos and relative barbarism of the Middle Ages. With the Renaissance it took on another task. It began to explore the world of nature. To trustee-

¹ For a more detailed account the full and informative article entitled 'The Universities of the Union of South Africa', by Dr. E. G. Malherbe, in *The Year Book of Education*, 1934, may be consulted.

ship it added research as a second function. Here in South Africa its origin has been much more humble. It started usually as a school to provide the rudiments and the groundwork on which the undergraduate course might be based. In the early days that opportunity only came to the few whose parents had the means to send them overseas. The settlement of a vigorous race of pioneers, however, meant inevitably in the long run the demand for at any rate a measure of cultural self-dependence. Here where western civilization and culture is the heritage, the direction of evolution has been from school to university, from below upwards. Inside Europe it has been in the opposite direction, from university to school, from above downwards.

This is at all events true of South Africa. The first focus was at Cape Town where the South African College School was opened in 1829. It was to develop into a university nearly 100 years later. At first a private and proprietary institution, it got public and official status through government recognition and aid after a few years of life. There must have been considerable development beyond the school level during the next twenty-five years. For we find that in 1858 the first step in the direction of the public control of higher education was taken by the appointment of a Board of Examiners. The Board was empowered to grant 'certificates of merit and attainment in Literature and Science, for admission to the Public Service and of proficiency in the principles of Law and Jurisprudence and in the theory and principles of Civil Engineering, of Land Surveying, and of Navigation'. Here the possibility of local, that is South African, faculties of both a purely cultural and an applied or professional character is clearly foreseen. It was further laid down that standards for certificates must correspond with those of the universities of the United Kingdom.

The second focus was at Stellenbosch, some thirty-five miles away from the administrative capital. Like the South African College it was an effect of the law or principle of cultural survival. But it arose from cultural needs in two respects different from those which the South African College met. The Dutch inherited a strong religious tradition, still further strengthened by the influx of Huguenot refugees from France in the second half of the eighteenth century. So that their first educational institution was a Theological Seminary to meet the demand for pastors or *predikants*, a need made greater by the Great Trek and the establishment of the northern republics. Secondly, they naturally treasured their own language and culture, so that a *Gymnasium* followed on the Seminary in 1866. This was destined to become Stellenbosch University in 1918.

Another feature of university evolution, borrowed—or rather copied—this time from England, appeared in 1873. This was the University of the Cape of Good Hope. Like the University of London in its early days it was external to the teaching institutions. An external institution which is concerned neither with the growth of knowledge by research nor with the spread of knowledge by teaching, but which confines itself to testing the work done by students to whom it stands in no real biological relation, hardly deserves the name of a university. It is in the position rather of a step-mother. Nevertheless, this stage was no doubt necessary and no doubt salutary while the institutions were on the road to maturity. It lasted till 1918. At that date the censorship of culture was transferred in a large measure at all events, as we shall presently see, to those responsible for its extension and its transmission.

(b) *The Rhodes Ideal of a National University*

So far progress towards the goal of university culture

and university life in South Africa had been shaped by two factors: the inheritance and translation of European traditions, and secondly their development in two institutions, the South African College at Cape Town and the Victoria College at Stellenbosch. Now we have to note an indigenous effort, one South African in origin and purpose. It came from Cecil Rhodes and was made possible by the discovery and development of the diamond fields in the north of Cape Colony where Kimberley now stands. He amassed great wealth, but in his powerful personality materialistic ambition was blended with and tempered by idealistic visions and dreams.

These were first focused on the idea of a single national university. It was a great dream of unity. He thought that such an institution would be the means by which the dualism embodied in the parallel institutions at Cape Town and Stellenbosch could be resolved. He believed that by bringing students of English and Dutch descent together in their impressionable and formative undergraduate years in the one institution, where they would live and work and play together, he would be taking the most effective step towards the realization of his dream of a united South African nation. He proposed to set aside a splendid site for it at Groot Schuur under the shadow of Table Mountain. He offered to endow it with a liberality beyond anything of which South Africa had so far dreamed.

The idea was a big one, as most of Rhodes's ideas were. So was the ideal, although the subordination of culture to nationalism, even as a primary objective, would be difficult to justify. And, of course, Rhodes's ideal, while aiming at South African unity, had in it a strong strain of imperialism. This was opposed to the dormant but none the less real aspiration towards independence which was the political characteristic of the Dutch. Then again, there was their

natural love for and loyalty to their own language, traditions, and culture. Anyway the scheme was doomed. With the blunder of the Jameson Raid went the prestige of Rhodes and the idea of a national university.

His prematurely early death followed in 1902, and his will disclosed his famous scholarship scheme. This scheme turned the quest for cultural inspiration northwards again to his own university of Oxford. The dream of a united South Africa gave place to the ideal of freedom of which Britain was, and still is, the great champion. So the longer view and the larger vision ultimately prevailed. For it has surely proved wiser, more consonant with cultural progress and with the need for the weathering of nationalism in the clear air of humanism, that students from the Dominions, from America and from Germany should meet at the oldest British university and become carriers and apostles of its atmosphere and cultural traditions.

(c) *In the North*

The most northerly republic, afterwards the Transvaal Colony and finally Transvaal Province, was destined to reproduce the dualism which the south had seen. At Johannesburg and Pretoria, about the same distance (35 miles) apart as Cape Town and Stellenbosch, duplication reappeared. There was, however, a striking contrast of origins. While Cape Town and Stellenbosch reached university status after a long period of probation, Pretoria and Johannesburg were born almost full-fledged.

The South African School of Mines and Technology, started at Kimberley, the diamond-mining centre, was transferred to Johannesburg, the gold-mining centre, shortly after the Boer War. It added academic to technical courses, and started an arts and science branch at Pretoria. The idea was to have one governing body and avoid dual

control. It was not to be. If Johannesburg had the glamour of wealth, Pretoria had the prestige of age, for half a century is quite a fair span in the perspective of South African evolution. Racial prejudices were strong. Pretoria was the old Dutch capital, Johannesburg the new rallying-point for Uitlanders. Also there was the rivalry and stress due to economic divergence. The farmers and the mining community did not mix; they had different traditions behind them and different aims in front.

So that it was almost inevitable that the dualism in the south would be reproduced in the north. At first the academic work was segregated at the Transvaal University College at Pretoria, and the technical and professional courses at the School of Mines and Technology at Johannesburg. This clear-cut division on the basis of curricula proved too drastic to be final. Both institutions crossed the dividing line. Johannesburg added cultural to technical subjects, while Pretoria added commerce and agriculture to arts and science. The road to university status was now wide open for both. It was reached in 1922 by Johannesburg when the University of Witwatersrand was established, and by Pretoria in 1930. Dualism has been made more complete by the decision of the authorities that Afrikaans is to be the medium of instruction at Pretoria, English remaining the medium at Johannesburg.

(d) *Other Nuclei*

Other smaller nuclei can only be mentioned. The Grey College at Bloemfontein, established in the middle of the nineteenth century, became Grey University College in 1907, meeting the cultural needs of the Orange Free State. Rhodes University College in Grahamstown was established in 1904 and developed from St. Andrew's College. Its historical background is another trek—this time of the

1820 settlers across the seas from Britain to escape the economic aftermath of the Napoleonic wars. Another British settlement and the isolation of distance accounted for the Natal University College, established in 1909. It was to expand into a cultural branch at Pietermaritzburg and a technical branch at Durban in a short time, thanks to local enthusiasm and generosity. A women's college at Wellington, founded in 1894 on the lines of the Mount Holyoke College in America, became the Huguenot University College in 1918. Potchefstroom University College, the latest arrival, acquired college status in 1921. It was an offspring of a theological college of one of the Dutch reformed churches.

(c) *Recent Development*

The constitutional development enshrined in the Union Act of 1910 paved the way to progress in university development by making higher or university education a Union function. Thus administrative machinery came into being which made a survey of the whole field possible. Progress was slow, for the task was great. There were eight college centres, four in the Cape, two in Transvaal, and one each in Natal and the Orange Free State; and reforms in the university field once made soon create a current and a momentum of interest, a drift hard to divert. Moreover, the European War with all its destructive and distracting effects intervened. However in 1916 three University Acts were passed which offered a solution of the problem as it then stood, and which embodied principles which will no doubt remain operative in future developments. These Acts established three universities: the autonomous University of Cape Town, the autonomous University of Stellenbosch, and the Federal University of South Africa, made up of six constituent institutions. The solution was

a compromise, but a healthy one. It embodied the principle of the independence and autonomy of the institutions ready for that constitutional advance. It kept the colleges with a smaller field of influence and more limited resources in a federation where community of interests could be maintained by a common senate to which the constituent colleges sent representatives. It put no obstacle in the way of the advance to autonomy of any of the constituent colleges when they were ready to stand alone. As already noted, Johannesburg and Pretoria have since hived off.

The position at the present time (1938) is as follows: firstly, there are the four independent and autonomous universities of Cape Town, Stellenbosch, Witwatersrand, and Pretoria (in the order of their origin). Secondly, there is the Federal University of South Africa, consisting of the five constituent colleges, Grey University College, Rhodes University College, Natal University College, Huguenot University College, and Potchefstroom University College in the order of their attaining college rank. To these nine institutions must be added the Native College at Fort Hare, affiliated but not a constituent member of the federation.

The position with regard to the distribution of students will be clear from Table II (p. 160). The table also contains information about the organization of faculties, and will therefore be useful when we come to that point in the next section. The European population of the Union was just under two millions at the last census, and is distributed over an area more than four times the size of the British Isles. Roughly three-fourths of the students, actually 6,382, were to be found in 1936 in the four autonomous universities, and the remainder, actually 1,976, in the five constituent colleges of the federation. The average number in the four single universities was therefore just over 1,500, and in the five constituent colleges just under 400.

COMMENT

The first comment of the European reader will no doubt be on what, at first sight and without a weighing of all the factors involved, does look like a waste and dissipation of effort and resources. Here are four unitary universities and the federal university with its five colleges, nine institutions in all, for less than two million European people. I leave out of account in this connection the native college at Fort Hare. When full account has been taken of two languages and cultures, of the distances which students would have to travel if the institutions were fewer in number, and of provincial individualism, pride and rivalry—when all this has been taken into account it is difficult to avoid the impression of lavishness reaching a point of extravagance and waste.

Nevertheless that judgment can be challenged. It rests in part on the idea of a university as something exotic, something lying outside the stream of daily life, whose members, like Browning's Grammarian, have decided 'not to live but know'; something set apart like a city on a hill, and almost monastic in its seclusion. This conception of a university is an anachronism. We are nearer nowadays to the Greek idea of the market-place as its appropriate milieu. It should be where men are. A university out of reach of all save those having the means and the opportunity to make a long pilgrimage, is out of date. This is true from the merely biological point of view. The doctrine of the survival of the fittest is not limited to physical qualities. It is equally, indeed far more, relevant to cultural and spiritual qualities.

What has just been said referred primarily to individual survival and progress. It is obviously still more relevant to corporate life, whether the corporate unit has as its

physical background a coal-field, a gold reef, a province or the whole Union. Culture, like charity, begins at home. It is a primary duty to provide a university institution within easy reach of all capable of profiting by it, and so of contributing to its cultural field of force.

When we grasp the real biological function of the college and the university, when we realize what spiritual values mean for the health of individual and corporate life, when we realize that the culture of these values is the condition of the survival of what is really fittest, then what looks like extravagance at first glance becomes in the long view the truest wisdom. We don't stop to count the cost in the multiplication of playing-fields, swimming-baths, theatres and music halls, concert rooms and libraries. We don't hesitate when the duplication of capitals has political justification. Why then should not the college or the university be readily accessible to all qualified to profit from them, seeing that they are the branches of that reserve bank which is the depository of the highest values?

This in no way affects the complementary truth that concentration and economy make it necessary to specialize at certain centres. Nor does it affect the universal truth that culture has no geographical boundaries. South African—and South Africa—owe much to the cultural adventure which have carried them to Oxford, Cambridge, London, Edinburgh, Amsterdam, Paris, Berlin, and America. Fluidity and exchange are conditions of cultural as of economic health, in spite of wild and whirling propaganda in favour of a narrow nationalism in both fields.

THE DISTRIBUTION OF FACULTIES

In this section we are to look at the work that the universities and colleges are doing, to consider the function

they are performing, the objectives they are aiming at. These functions and objectives are, I should be inclined to say, empirical rather than deliberate and rational in origin. They have emerged from the stress of circumstances rather than from some purpose clearly realized beforehand. They will show the trend of university development in a young country.

Let us first look at the facts. They are to be found in the Table to which we have already referred. The first one to be noted is that in the four unitary universities the students taking technical courses are to those taking academic courses, the 'pure arts and science' of the Table, roughly in the proportion of three to two. For our purposes technical, professional, and vocational may be taken to be equivalent terms. In the five constituent colleges of the Federal University, the proportion is the other way round: there are two students taking academic courses for every one taking a technical course. But in all cases the students taking the academic courses are either going on later to a professional course for which the academic course is a preliminary qualification, or they have a vocation in view, the Civil Service for example, for which an academic degree means a good start. In a word the objective is in practically all cases vocational.

This is no doubt typical of the aims of university students and the objectives of university organization in settlements due to the expansion of Europe in modern times. And the reasons are not far to seek. In such young settlements there is no leisured class. All young men and most young women look forward to a career. The conscious purpose is vocational rather than cultural. We shall consider shortly whether this means real divergence, a real parting of the ways. Here we merely note the fact.

It is clear as regards individual aims. And it is emphasized

by corporate needs. The community must have a local supply of experts to meet its political and professional as well as its industrial and commercial requirements. This is a condition of survival and progress. It cannot send overseas more than a few of its most promising students. For the rank and file of its technical exponents it must be self-supporting. So that there is both an individual and a corporate urge towards a technical trend in university courses.

The distribution of the professional faculties reflects environmental conditions and the vocational bias of English and Dutch. Mining and agriculture are the two primary industries. Engineering, especially its mining and electrical branches, has a strong faculty at Witwatersrand where British students are in the majority, while agricultural faculties flourish at Stellenbosch and Pretoria where Dutch students predominate. This original vocational segregation is likely to be modified as time goes on. The immigration of British miners has practically ceased and their place is being taken by Dutch recruits whom the land has ceased to support. There is an opposite current of Britishers, much less strong but still a real factor, from urban centres outwards toward the land. This is especially true of areas where citrus farming is carried on. There is a flourishing faculty of engineering at Cape Town and a third, younger and smaller, at Durban.

The profession of medicine is equally well provided for. There are strong faculties at the two largest universities, Cape Town and Witwatersrand, each with about the same number of students, and each with liberal and accessible hospital facilities. It is not unlikely that the medical school at Cape Town, with its splendid equipment of men, means, and facilities, and with its magnificent natural environment, will take front rank in the southern hemisphere.

Commerce, one of the most recent fields of university penetration, is found flourishing where one would expect to find it, namely at the four largest urban centres of Johannesburg, Pretoria, Cape Town, and Durban, and in that order as regards student enrolment. It is worthy of note that in South Africa the university field has not been extended beyond traditional bounds. The criterion, mentioned a little later, of a coherent and sufficiently developed body of doctrine providing the theoretical basis of an activity essential to civilization, has been observed. Perhaps not consciously; it may be because our population is small and because the European tradition is strong. In this matter of content our universities are still to a large extent inside Europe.

Law represents a strong and ancient European tradition of course, and flourishes where, as here, individualism is marked. The South African judicature has always been of high repute. Law courses are widely distributed. In fact, they are to be found at every university centre except Wellington and Potchefstroom.

One important exception to the predominantly vocational trend is illuminating. Stellenbosch, the oldest institution representing the Dutch cultural tradition, has remained more markedly academic than any other. If the figures in Table II (see p. 160) are examined, it will be seen that in 1936 82 per cent. of its students were taking pure arts and science or education. It is the centre fed mainly from rural areas and smaller urban centres. At the constituent colleges of the federal university also academic courses predominate. Some of these, however, are first-year courses in the biological sciences preparatory to medicine or agriculture; others are first-year courses in the physical sciences and mathematics preparatory to engineering.

The vocational bias raises a fundamental question. Has

the gap in latitude and a century of more or less isolated evolution of the content of university work meant a break with real culture? Is that the inevitable result of our fusion of the academic and the utilitarian? My reply would be a decided negative. It can, I believe, be maintained that culture is not defined by the content of its field. We may not accept Bentham's dictum that pushpin is as good as poetry, but we can with sound and solid reason refuse to take part in what seems to be at bottom a futile controversy as to the greater cultural value of, say, classical as against modern languages, or of the humanities as against science. Leaving aside tradition, as we are entitled to do, there would appear to be only two conditions necessary if the study of a subject is to have real cultural value. The first is that it should deal with some essential feature of nature or civilization; the second is that it should have a coherent body of theory or doctrine. If these two conditions are satisfied, it will be cultural in the only ultimate sense and it will be worthy of a place in the curriculum of a university.

The recent trend of philosophy is perhaps at least indirectly relevant to the point we are discussing. The rise of the doctrine of relativity has restored mind not to the Kantian position but to a dominant one in the structure of reality as known. Absolute space has gone and absolute time is at the bar of criticism. The *continuum* of reference is mind-made, so that the material universe, the whole choir of heaven and furniture of earth, as we know it, is from one point of view a mind-construct. And, of course, the whole social order, its political, economic, social, and—let us not forget to add—its artistic creations, is man's work. So that whether we look to nature, the field perhaps of eternal Mind, or to civilization, the field of man's mind, we find what might be called a democracy of claims. Provided the two conditions noted in the preceding paragraph are satisfied, one field of

investigation has as good a claim as another to be fundamentally cultural.

Perhaps one other qualification is necessary. All technique is, or should be, at long or short range relevant to human betterment; and all technicians would be better for seeing their work in its human context and, what is more, for having that context lit up by the humanities. Apropos of this latter point, I once sat next to a motor mechanic at a performance of *Henry V* at Sadler's Wells. He was a real lover of Shakespeare. He knew all the choruses by heart and told me he never went to the garage without a play in his pocket. Here, in the cross-fertilization of the vocation and the humanities, there is a fertile and an appropriate field for university extension work.

Thus the University in South Africa is democratic in the sense that it recognizes the prior claim of no subject, however greatly privileged by tradition, to be a medium of culture. It is also democratic in the more ordinary sense of not recognizing the prior claim on culture of any privileged class. This dual democracy of subjects and of students is no doubt indicative of what is happening or is likely to happen elsewhere. We are a small European community and our experiments and our experience are of laboratory scale compared with the great university field of Europe. But laboratory experience is often the clue to laws and principles widely operative. What is happening here is probably happening elsewhere.

FINANCE

Table III (see p. 161) gives some information about the financial side of our university work. The section dealing with sources of income calls for special comment inasmuch as it throws light on the way responsibility is shared in a

young country. There is first the corporate or public contribution. This can be subdivided into what comes from central and what comes from local sources. Then there is the individual responsibility of the student, represented by income from fees. These are the three ordinary sources of recurrent revenue. The fourth is represented by interest on endowments.

The corporate share of the burden is large. It is well over 50 per cent. if we add together the first two items of the income table, the second one being made up largely of the contributions of local bodies. Government grants look astonishingly high, but they are accounted for by three powerful motives. In the first place they are the premium paid for the assurance of economic survival. A country dependent on mining and on farming in a sub-tropical belt must have facilities for training and research in technical directions. In the second place they express the cultural pride and prestige of the two constituent European races. Here account has also to be taken of the effect of the presence of a population of some $6\frac{1}{2}$ million natives in addition to a European population of nearly 2 millions. It is not merely a question of maintaining a European standard. It is a question of maintaining a general average of culture and civilization in keeping with our trusteeship *vis-à-vis* a large native proletariat. In the third place, these liberal government grants express the conviction—inarticulate, perhaps, but yet real—that culture is the high road to humanism, that in spite of power politics and similar short-range objectives it is the life of the spirit which matters most. A similar corporate sense of survival, prestige, and true values is no doubt behind the local grants.

The theoretical basis of the government grants is independent revenue. This is sound in principle. It is in keeping with the spirit of independence and individualism character-

istic of both races. State aid is proportional to private effort. That is at least the theory. A committee of enquiry¹ recently tried to reduce the principle to a formula. The details would be out of place in a short article like this. The idea was to stimulate local pride, initiative and responsibility. The formula has had to be modified to meet the needs of institutions not receiving sufficient private support; but the principle is sound enough.

The income from fees is reassuring. It indicates a considerable measure of individual self-reliance, or so at all events it seems to us. The cost to the individual student is on the average round about £150 per annum, including boarding and tuition fees. This figure looks small in comparison with, say, a Rhodes Scholarship worth £400 per annum, even when the cost of sea journeys and long vacations overseas is taken into account. It is, however, in keeping with that spirit of democracy which is, as already noted, one of the main clues to our university life.

The two oldest universities have been the most fortunate in their benefactions. The Wernher-Beit endowment of half a million went to Cape Town, which has also had a response to public appeal amounting to a figure well on the way towards another half-million. Stellenbosch has an endowment fund of a quarter of a million including the Marais bequest of £100,000. The De Beers Company has distributed something like £120,000 between Cape Town, Stellenbosch, Witwatersrand, and Rhodes University College. The total interest from endowments amounts to over £66,000 per annum or 8 per cent. of the total income. So that when we remember how short the life of our university institutions has been, there is much to be thankful for.

¹ See *Report of the Committee of Enquiry into Subsidies to Universities, University Colleges, and Technical Colleges, 1933*, (J. E. Adamson, Chairman), Union of South Africa, Education Department, 1934.—Ed.

RESEARCH

Research is the first in rank of university functions; not so much because of the absolute value of knowledge in and for itself, but because knowledge and culture are not and cannot be static. Change is of their essence. The culture of the classics leads on to the culture of, say, Goethe and Shakespeare. Newton paves the way for Einstein. There is constant evolution, with which research must keep step. And it is peculiarly at home in the University, free as this is to explore the world of nature or the world of man without being concerned with the implications of the truth it discovers.

It is a late development, at least as a separate department, in a university in a young settlement outside Europe, preoccupied as it at first is with the conservation and spread of the culture it inherits. It is an essential development, however, if a university is to reach maturity. For the spirit of research should be pervasive of all stages of its activity. Teaching, even of undergraduates, should be rather such organization of subject-matter as will call for independent investigation by the student than a presentation of it to be accepted. And for post-graduate work it should be compulsory. So that at all levels it is the expression of the true university spirit.

Coming down to facts we find that research has been undertaken by other agencies while the University has been developing. The research institute in veterinary science at Onderstepoort made famous by the work of Sir Arnold Theiler, whose lead is being splendidly followed by the present Director, Dr. P. J. du Toit, is a case in point. It was established by the Government to meet an urgent economic need, namely the prevention of disease among horses, cattle, and other animals. The Institute of Medical Research had as its first objective the investigation of the

hygienic conditions of mine-workers and in particular the scourge of miner's phthisis. These institutions are now both linked up with universities, the former with Pretoria and the latter with Witwatersrand, no doubt with mutually stimulating effect. In other directions, too, the Government has started its own investigations; but no doubt as time goes on these will be brought into organic relation with some conveniently situated university institution

The field for research in South Africa is wide. The primary industries of mining and farming have already been mentioned. Many secondary industries are springing up. The visibility of South African skies should attract the astro-physicist. And to turn from the skies to man, there is a large field, the field of the labour supply, where we have to face the economic contact of European, coloured, and native with its far-reaching social repercussions. Here is a most appropriate field for research by the University, unhampered as it is, or should be, by race prejudice. It is significant that at the time of writing the South African Association for the Advancement of Science has decided to devote the whole of its next Annual Meeting to a symposium on the best way to preserve and utilize South Africa's human resources. This problem of race-relations, economic, social, and political—that is, we suggest, the order of importance—is fundamental for South Africa. If the solution of a sane humanism is to be found so that men become ends as well as means, the University is the institution best fitted by its detachment to find it.

THE FUTURE

Looking ahead, there is the problem of race relations just referred to, but this time in a cultural context. It is clear that a university can preach no other gospel in any

context than the sane humanism just mentioned. Its very name implies that it faces all subjects and all men freely and fearlessly. We have already argued for a democracy of subjects, and there is an irresistible case for universal suffrage among potential students. The principle is recognized now. The qualified Eurafriean is admitted at some universities. The Bantu has a Native College at Fort Hare recognized by the University of South Africa.

The latter is an instance of cultural segregation, obviously the right policy for the Bantu at this stage when only a very small percentage are ready to go beyond the school level. Obviously it is the right one also during the period of transition of the native from a patriarchal social milieu to a form of civilization alien to him. Time alone will solve the problem of the value and the limits of segregation. What the University cannot but support is the sacred right of the opportunity for culture for all who are ready for it.

Race relations point also to the special claims of the European minority who will remain in a position of leadership and trusteeship certainly for generations to come. The University alone can prepare them for it. It must not only prepare the outstanding few who are ready for graduate rank. There must be an extension of university effort which will bring culture fitting for trustees within reach of all. The average European in South Africa is analogous to the guardian in Plato's Republic. Its stability as a structure embodying the cardinal virtues was in the guardian's keeping. But as we have left Plato's social stratification behind we shall have to nurture something of the spirit of his philosopher-rulers in our European citizens. And a liberal extension of university activity seems to be the only way.

There is another direction in which one may at any rate hope for development. The parallelism of our institutions

has been referred to as what might have been expected to emerge from our historic background. We need not be slavishly bound by it. A measure of cross-fertilization would be healthy and not difficult. There is no reason why an outstanding professor from one member of a pair of parallel institutions should not from time to time be transferred for a term or so to the other member. It has been remarked already that exchange is as necessary for cultural as for economic well-being. This would be a very good way of promoting it. General Smuts has delivered Rhodes Lectures at Oxford. There seems to be no reason why we should not have fluidity of intercourse here.

[TABLE II.]

Table II.—*South Africa, Universities and University Colleges: Students classified by Faculties.*
(Average enrolment for the Calendar Year 1936)

<i>Faculties.</i>	<i>Capetown.</i>	<i>Pretoria.</i>	<i>Stellenbosch</i>	<i>Witwaters- rand.</i>	<i>University of South Africa (five constituent colleges).</i>	<i>Total.</i>
Pure Arts and Science .	456	556	744	640	1,307	3,703
Education	84	43	245	—	193	565
Medicine and Dentistry .	613	20	—	570	27	1,230
Commerce	149	208	55	270	156	838
Engineering and Technology	261	83	—	608	95	1,047
Law	89	21	27	44	95	276
Fine Arts and Music .	304	1	13	—	55	373
Agriculture and Domestic Science . . .	—	91	118	—	23	212
Other Faculties . . .	—	65	4	—	25	94
TOTAL .	1,956	1,088	1,206	2,132	1,976	8,358

Table III.—South Africa, Universities and University Colleges :
Summary of Income and Expenditure, 1936.

EXPENDITURE.

Description.	UNIVERSITIES.						UNIVERSITY COLLEGES.				Total.	Percentage of Total.
	Cape Town	Stellenbosch	Wimlabersburg	Pretoria	South Africa	Orange Free State	Huguenot	Natal.	Pietermaritzburg	Rhodes		
Administration	£ 12,647	£ 7,520	£ 21,934	£ 10,677	£ 13,310	£ 3,109	£ 804	£ 4,345	£ 1,259	£ 2,736	£ 78,341	9.47
Instructional expenses	129,234	61,187	120,375	45,336	—	20,193	8,086	30,775	16,285	26,977	458,448	55.42
Grounds, buildings and equipment	52,329	12,263	62,373	5,759	970	1,950	1,347	5,203	2,534	10,314	155,042	18.74
Bursaries, scholarships, prizes, and loans to students	7,538	6,066	11,570	423	940	—	269	2,019	564	463	29,852	3.61
Capital expenditure	17,878	3,406	9,626	4,129	182	305	451	400	947	4,682	42,506	5.13
Other expenditure	6,645	5,946	15,046	7,402	1,359	1,556	311	2,107	1,231	5,288	46,891	5.67
Balances—	—	—	—	—	—	—	—	—	—	—	—	—
Hostel deficit	—	3,478	1,315	—	—	—	—	—	—	—	4,793	.58
Surplus	—	—	—	5,476	1,639	—	—	1,931	234	2,123	11,403	1.38
TOTAL	226,271	99,866	242,239	79,702	18,400	27,113	11,268	46,780	23,054	52,583	827,276	100.00

Table III.—*South Africa, Universities and University Colleges:*
Summary of Income and Expenditure, 1936—continued.

INCOME.

Description	UNIVERSITIES						UNIVERSITY COLLEGES				Total.	Percent- age of Total.
	Cape- town.	Stellen- bosch.	Witwaters- rand.	Pretoria.	South Africa	Orange Free State.	Transvaal	Natal	Pokla- stroom	Rhodes		
	£	£	£	£	£	£	£	£	£	£	£	
Government grants	91,800	46,000	90,000	43,360	1,000	19,000	8,000	21,100	12,000	27,000	359,260	43·43
Other donations and subscrip- tions . . .	21,056	6,438	33,507	4,899	200	265	410	7,470	1,900	4,151	80,296	9·71
Fees . . .	74,867	33,411	103,461	26,791	804	6,837	1,808	16,698	7,293	15,966	287,936	34·81
Interest . . .	36,270	10,198	7,519	2,805	2,953	76	580	1,503	—	4,418	66,322	8·01
Other revenue . . .	2,078	2,613	4,155	601	13,443	142	213	9	1,586	1,048	25,978	3·13
Balances— Hostel surplus. Deficit . . .	— 200	— 1,206	— 3,597	1,156 —	—	— 793	190 67	— —	275 —	— —	1,621 5,863	·20 ·71
TOTAL . . .	226,271	99,866	242,239	79,702	18,400	27,113	11,268	46,780	23,054	52,583	827,276	100·00

* Includes £1,360 from Department of Agriculture.

SOURCE.—Union of South Africa, Department of Education, *Report for Calendar Year 1936*.

The University in Australia

G. V. PORTUS

'ART is upon the town' said Whistler mordantly in the eighties, when William Morris was crusading around London on behalf of medieval furniture and craft wallpapers. Nowadays, with the crusades of physicists, statisticians, economists-of-the-calculus, and mathematicians-for-the-million, one may say—perhaps a little wistfully—that mathematics is upon the University. To be in the vogue, let us begin by saying that the Australian University is a function of two variables; which means that the foundation and development of universities in Australia have been conditioned both by the Australian background and the British tradition of what universities ought to be.

This word 'background' must be given a spacious content. It includes not only the kind of civilization that existed in Australia in the second half of the nineteenth century, but also the material background, that is, the geographical environment and the economic outfit imposed upon it and progressively adapted to it. For the Australian University cannot be understood without some knowledge of the country itself, and the way in which its inhabitants have been making it over to suit their needs and ideas. These things have determined very largely the political and social forces that operate in Australia, and of these forces the Australian University is a reflex. It is necessary therefore to sketch some of the vital and characteristic features of this background.

The narrow coastal strip from Cape York round to Adelaide is the real garden of Australia—fertile and well watered. In this area lives, and will live, the great majority of the Australian population. Behind this strip is a zone of grazing plain-land, where wheat grows easily. This shades off inland into a pastoral belt of hot savannah grassland with an uncertain water supply. The central part of Australia is an arid plateau with a rainfall of less than 10 inches a year; and this area covers more than a third of the land surface of the continent.

The population of Australia is nearly seven millions and the population density is 2.3 persons per square mile. The country comprises more than a fifth of the land surface of the British Empire, but contains only one-seventieth of the Empire's population. Moreover, this population is extraordinarily unevenly distributed. Nearly half the Australian people live in six capital cities. This is the greatest metropolitan concentration in the world, and it is a phenomenon of long standing. Outside the capitals the population is exceedingly scattered, only one town—Newcastle in New South Wales—containing 100,000 people. The next largest town is Geelong in Victoria with 40,000 inhabitants. This distribution is due to the development of the Australian economy, the fundamental fact of which is that Australia is a country where large sheep-runs pay better than small farms. The prosperity of the country is still bound up with the great export industry of wool, although Australia is now highly industrialized. Industry has, quite naturally, developed most in the densely populated areas where it finds the best markets. This has intensified the tendency to metropolitan concentration.

In a country of wide spaces and a scattered population communications are vital. Yet the burden of providing them, and also water-conservation, irrigation, and other

services, is so onerous that none but the State can bear it. This has developed a tendency among Australians to depend upon State action to solve their problems. In consequence, the area of State assistance and State enterprise has steadily been extended. There is singularly little local government in Australia. It is, therefore, not surprising to find that the State has gradually taken over more and more of the responsibility for providing education, not only in the primary and secondary fields, but also in the university field. Here, then, are the economic and political backgrounds which have conditioned the development of Australian universities.

But the material background, even with its economic and political reflexes, is not enough. 'Man', as even Marx acknowledged, 'makes his own history, but he does not make it out of whole cloth. . . . The tradition of all dead generations weighs like a nightmare on the brain of the living.'¹ It is pertinent to enquire, therefore, what were the traditions of the Australian people when they set about founding universities. The traditions were overwhelmingly British, since the racial stock was overwhelmingly British. Of the present population, over 98 per cent. were born in the British Empire. This figure certainly includes persons born in Australia, but of foreign descent. But the proportion of these is small—perhaps 10 per cent. Even in 1861, *after* the gold rushes, 92 per cent. of the Australian population had been born within the British Empire.

What were the traditions about universities which transplanted Britons were likely to cherish in Australia up to 1850? A number of administrators, being English, had come from Oxford and Cambridge, and some from London. Obviously Oxford and Cambridge could not be duplicated. The cost was prohibitive. Moreover, the Australian community was not so enamoured of Anglicanism as all that.

¹ Karl Marx, *Eighteenth Brumaire of Louis Bonaparte*.

The University of London was *sui generis* and defied transplantation. Of the English provincial and the Welsh universities, only Durham (founded in 1832) was then in existence. Across St. George's Channel there was Dublin, but the great majority of the Irish who emigrated to Australia were not of the leisured or professional classes who might be expected to carry abroad academic memories. Scotland, with its ancient non-residential universities, governed by a combination of dons and citizens and frequented by students from every social class, offered models more easily copied, and more in accord with the Australian temperament. The older Australian universities, at their foundation, approached more closely to the Scottish pattern than to any other. Yet in one respect the Australian universities resemble those of the United States. None of them could exist in its present form, indeed none of them could have been founded, without the help of the State. In spite of the many private benefactions they have gathered they cannot function without public assistance. The statistics of income in 1901 and 1935 make this clear (see Table IV, p. 182). Notice that all public help comes from the State governments. None is received from local government bodies, although there is a large municipality in each of the capital cities where universities are established. The first three universities were named after the capital cities; the last three were named after their respective states—another American touch. Development in the American direction would not be surprising, even apart from similarities in financial conditions. There is an increasing bond between Australia and the United States. The growing ease of communications and the fortunate accident of a common tongue were bound to lead to this. It is not, however, in the aura of the ubiquitous empire of Hollywood, but rather through the beneficent activities in Australia of the Carnegie

and the Rockefeller Foundation, that our knowledge of American academic ways has grown.

Yet, when all allowances are made for these things, the type to which the Australian universities most closely approximate is neither the American nor the Scottish, but the English provincial university. One has only to read the reports of the British University Grants Committee to realize how substantially similar are the problems we face, the customers we serve, the difficulties we encounter, and the mistakes we make.

How far does our dependence on State grants lead to the danger of interference by the Government? This is apparently a very real danger to the universities of the totalitarian states. A similar danger seems to exist in some American universities, though there the threat of dictation seems to come from powerful private interests. Do such dangers exist for universities in Australia? I have been connected with Australian university life for over a quarter of a century, and I have, personally, known only three cases of threatened political interference. All three cases were trivial matters. Two of them arose from the wounded *amour propre* of Cabinet Ministers. The third was a case of political self-advertisement. They were all discreetly handled and no one felt impelled to alter the incidence of his teaching in any way. I should point out, however, that I have known intimately only two of the six Australian universities. There may have been other cases of attempted dictation; but if they had involved a vital threat to academic freedom, it is safe to say we all should have heard of them. Of any attempted dictation by private benefactors I have neither heard nor seen any sign whatever in Australia.

Outspoken declarations of opinion by members of university staffs sometimes induce nervousness in timid

university administrators. 'You mustn't quarrel with your bread and butter, you know.' And there is a tendency in governing bodies in making new appointments to play safe and to fear unduly what are thought to be radical social opinions. This is perhaps inevitable because of the composition of the governing bodies, which are largely constituted through election by the graduates and nomination by parliaments. By the time a man is well enough known to be elected or nominated he has come to the cautious stage of his career.¹ Moreover, once elected, it is in practice difficult not to be re-elected. There is, at least in the graduate body, a general feeling that it is hardly the thing to turn down a candidate who has already served a term. For university politics are decorous and perhaps a little precious in tone.² All this perhaps sounds worse than it is. The undergraduate Left, and some of the youngsters on the staff, picture the governing body as a kind of inverted Micawber—waiting for something to turn down. But this is little more than impatience. Perhaps the average age of the governing bodies is too high. A suggestion that a quarter of the members should be less than fifty years old would be regarded as revolutionary.

None of the state governments exercise any control over university politics beyond having the right of appointing a minority of the governing body. But in practice the governments do determine to a certain extent the directions in which the universities expand, since they grant the funds for certain specified projects. Naturally, in a country like Australia, the attention of governments is secured by projects which seem to them 'practical'—agricultural and veterinary

¹ Indeed three of the six governing bodies are known as 'Senates'.

² Nothing like the notous Scottish rectorial elections flourishes in Australia, although we have drawn a very considerable proportion of our professors from the Scottish universities.

schools, engineering research, preventive medicine, animal nutrition and the like. All these serve the interests of the scientific rather than the cultural side of the University. For governments in Australia regard education as an instrument rather than an experience. But when the various governments began to offer increased grants for general purposes in return for free tuition for their teacher trainees, the arts side was directly influenced. Since then, teacher students have predominated in the faculties of arts. The increased grant was largely absorbed in providing duplicate evening tuition for those (teachers and others) who could not attend during the day. But the day classes swelled in numbers without a corresponding increase in staff. This has not been a gain from the university point of view, since many of the classes became too large for effective tuition. The evening students form a distinct enclave in Australian universities. Heroic but tired, they rush to the university after working-hours, rush off to the library between lectures, and rush away again to catch trams and trains. There is no time for that easy informal exchange of ideas with their fellow students which is so important to undergraduates. Nor can they take much part in the sporting or social life of the university. No wonder these sons of Mother Eve are inclined to earnestness and solemnity. One speculates sometimes whether they would not be better employed sitting by their own firesides and reading the books from which come so large a proportion of the lectures they hear.

This, indeed, raises the question of compulsory lectures. Half our population is scattered over immense distances. What then are we to do with the country students who desire a university education, but for whom attendance at lectures is physically impossible? In 1860, less than ten years after it had opened its doors, the University of Sydney received a petition asking it to grant degrees after examina-

tion without attendance at lectures. The Senate replied that it was 'essential to the maintenance of the value of the Degrees themselves, as well as to the attainments of the higher educational objects for which the University was founded, that the possession of a degree should prove, not only that the holder has acquired a certain amount of information, but that he has undergone a systematic course of mental training under the immediate direction and guidance of eminent scholars, such as it has been, and will be the care of the Senate, to place in the Professorial chairs of the University'.¹ The pressure continued, and five years afterwards the Senate conceded that certain undergraduates in special circumstances might be exempted from lectures. The outcome was regarded as unsatisfactory. A large proportion of the exempted students failed to appear for examination. It was felt that, in the long run, exempted students would find their self-imposed task of private reading too much for them, that attendance at classes would suffer, and that the number of candidates for degrees would diminish. In the end the practice was discontinued.

Melbourne was more tender to the outback. In 1858 it allowed exemption from lectures, and it has stuck to its guns ever since in spite of criticism from all quarters, including a Victorian Royal Commission in 1902. Its present policy is expressed thus: 'attendance at lectures is not compulsory except when otherwise expressly provided by Statute or Regulation.'² Adelaide, Tasmania, Queensland, and Western Australia have also permitted students to be examined without attendance. They guard their exemptions with certain restrictions as to remoteness of residence, number of subjects per annum and the like, which differ

¹ H. E. Barff, *Short Historical Account of the University of Sydney*, p. 92 (the capitals are the Senate's).

² Ernest Scott, *History of the University of Melbourne*, p. 43.

slightly according to the circumstances of each university. But it may be broadly said that all the Australian universities except Sydney make a general practice of exemption in certain cases.

A good deal may be (and has been) said on both sides. Opponents of exemption hold up the home-study courses of some American universities as horrible examples. They point with scorn to the University of London, although it is not apparent that graduates of London are inferior in calibre to our own. Sydney has stood on its ancient arguments against exemption. Its classes would diminish. Its standards would suffer. The exempted students would be insufficiently prepared. In reply it could be urged that smaller classes would make for more effective teaching than do the huge ones that are not uncommon in those arts subjects which are chiefly concerned. Nor are the standards at the universities which grant exemption noticeably lower than that of Sydney. The risk that exempted students would not be sufficiently prepared is a risk that exempted students must take. But to argue that a student is only capable of getting up a subject under the 'guidance of eminent scholars' who are placed 'in the Professorial chairs' is surely, at this stage, to do us too much honour. Experience does not confirm this contention. Some exempted students do better work than those who have had the inestimable privilege of sitting at the feet of Gamaliel.

The cogent arguments for exemption from attendance are the size of Australia, the disposition of its population, and the obligation on universities not to discourage country people, already bereft of much that metropolitans enjoy. The country teacher's sense of grievance was sharpened after the abolition of fees for teacher students. A degree became a means to promotion. Young teachers had to go to the country when ordered. Unless the University granted

exemption from lectures, appointment to a country school would act as a disqualification for promotion.

The University of Sydney, helped by local benefactions, and fortified by an extra subsidy from a government which depends largely on country support, has this year (1938) established a university college at Armidale, 400 miles from Sydney. Here a resident staff will prepare students for a portion of their degree examinations in arts and science. This is the first University College in Australia. It will serve only the north-eastern corner of New South Wales. The country folk in the south and the west will remain shut out from university degrees unless Sydney grants exemption from attendance at lectures. Nevertheless, this new foundation is to be welcomed as the first sign of decentralization of university education in Australia. It raises the question whether our universities have not grown too large.

The Universities of Melbourne and Sydney have more than 3,000 students.¹ From 350 to 450 in each place are living in residential colleges. Many of the others do not get to know their fellow undergraduates outside their own faculties at all. The University Union, the playing-fields, the score or two of undergraduate societies go some way towards removing this separateness. But the current set towards specialization emphasizes it. The difficulty is to prevent the increase in size and numbers. Subsidies are made available for this or that new work, and universities accept them. Benefactors tend to support an existing institution. I have never heard of a governing body declining a subsidy or a benefaction on the ground that its acceptance would make the university too unwieldy. One of the best things that could happen would be the foundation of new and rival universities in the larger states. The competition would not be unhealthy, and the menacing growth in size

¹ See Table V, p. 183.

of the older universities would be checked. The optimum size of an Australian university would seem to be about 2,000 students, with other appurtenant persons. More than this will threaten personal contact not only between teachers and taught but even between the students themselves.

The university population of Australia is 1 in 670 of the total population.¹ So far the graduates have been absorbed. We do not export them to any extent as Scotland is forced to do. Nor have they yet become what the Americans call 'a residual element in the current social program'. Complaints are heard from certain learned professions from time to time that too many doctors or lawyers are being turned out. But the grounds of the complaint are generally that the new graduates are a threat to the customary privileges of the older ones. There seems to be little doubt that the Australian community can absorb its graduates if it will adjust itself to progress instead of lying close behind the wall of security. But if vested interests prevent this adaptation, it is possible that our graduates will not be absorbed. In that case we shall build up a kind of workless intellectual proletariat, which, not assuaged by unemployment relief, may force this issue of adaptation in terms of revolution rather than adjustment.

How have the Australian universities answered the demand from outside their walls for popular university education, apart altogether from degrees? The first response was the University Extension movement dating from the eighties of the last century. After a chequered career this became more or less moribund. Interest in extra-mural university education was, however, revived by the advent of the Tutorial Class movement in 1913. Here again effective beginnings depended on state action; for no Australian

¹ For the proportions in other countries see Table I, p. 21.

university, however sympathetic, was prepared to devote any of its existing funds to the new movement. Special subsidies were gradually voted by each state government, and the scheme took root. Its development has depended very much on the personal qualities of those who have administered it—both from the side of the university and of the Workers' Educational Associations in each state. In some states good work has been, and is still being, done. In others the movement has fallen away from its earlier ideals. Cuts in the special subsidies have, in most cases, not been recovered. Nor can it be said that any of the Australian universities has thrown its weight wholeheartedly behind the movement. Here and there it has gained the support of liberal-minded professors, but for the most part it has presented itself as one of the things that might be worth doing well if only there were not so many other things that needed doing. The Carnegie Corporation has, however, allotted several substantial grants to the universities to further this work in Australia.

One of the achievements of the Tutorial Class movement in Australia has been to improve—where it has touched—the intra-mural teaching. Professors and lecturers who became tutors, as well as tutors who afterwards became lecturers and professors, have been led to introduce the tutorial class technique of discussion into their intra-mural work, with results beneficial both to their students and to themselves. It would indeed improve university teaching in Australia if the authorities would insist that the young lecturers whom they appoint should, when possible, undergo an apprenticeship in these extra-mural classes, where mere scholarship will not be accepted by the students as an excuse for poor and inefficient teaching. For the extra-mural teacher has to arouse the interest of his students. Otherwise they will reject him by not attending his lectures.

For the rest, the movement has developed along English lines, modified, of course, by the different environment, and the great distances that have to be covered. Here, as there, it has encountered suspicion. The classes have been stigmatized by conservative people as dangerous and subversive, while radicals of the Left sneer at them for being hopelessly bourgeois. This is no more than symptomatic of the stark social disunity in modern communities, which exists in Australia as elsewhere.¹ There is no reason to expect that the demand for extra-mural adult education will diminish. The desire to realize unused powers, the growth of leisure through the shortening of hours, the urge to understand and, if possible, to direct the social process, all these things will help to sharpen the demand. If the universities do not meet it, it will be met by the development of outside and more propagandist agencies. For many in the Australian universities this would doubtless be a relief. But it would be a pity. For both the community and the universities would suffer from the transfer.

It cannot be said that the Australian community has any very clear idea of what should be the purpose of a university. For the majority it is a place which serves the community by turning out its doctors, engineers, lawyers, dentists, and teachers, and by providing advice and assistance for its farmers and pastoralists. It is true that some of the founders talked about the necessity of cherishing and imparting culture, and of learning for learning's sake; but that aspect has receded into the background in the estimation of the community. It too readily lent itself to the idea of class-snobbishness, illustrated as it was by references to the

¹ There were 157 groups of various kinds meeting in all the states except Western Australia in 1936. The number of groups in Great Britain in 1934-5 was 14,493.

Oxford and the Cambridge of the nineteenth century. Moreover, within the universities themselves, impatience with the idea of a cultural education grew with the development of the professional schools. It began to be emphasized that a university was not a tertiary school for putting a final polish upon schoolboys, but a place where 'students are studying to gain a livelihood by the results of their study. The Degrees they seek must have money value—they are not to be mere evidence of more or less of culture.'¹ But, even on this view, the University could not remain merely a teaching institution. For, even if the end it set was the development not of the student as student but of the student as professional man, this end in turn postulated that, if only for the sake of professional competence, research must be set on foot in universities. So learning, as well as teaching, had to be considered. Research began to be elevated as the true end of a university's being.

When the professional schools were first established, their students were required to take within the university some part of a liberal, as opposed to a purely scientific, course. But the demands of the professional schools for more of the students' time have resulted in pushing this preliminary preparation back into the schools by including it within matriculation requirements. Here is another of our difficulties. If we could induce boys and girls to stay at their secondary schools for a year after matriculation, we could save our first year from a good deal of what is really secondary school work. But when this is suggested, one is immediately met with the economic argument that the parents cannot afford so long a training. The adolescents who are destined for the university must be out and learning a

¹ 'University Life in Australasia in 1891,' by Professor T. P. Anderson Stuart. *Proceedings of the Royal Colonial Institute*, vol. xxiii, 1891-2, p. 113.

profession, so that they may be off the hands of their parents sooner.

Thus we meet at one end of the university a kind of university kindergarten stage, and at the other a discreet bustle of specialists—factual hens with their beaks close to a chalk-line on the ground, self-hypnotized by the process of collecting more and yet more data. If our universities are to rise from what Sidney Webb bitinglly called universities—‘technical schools for the brain-working classes’—we must traffic more in ideas and less in facts. I shall not split hairs over any definition of these terms. Those who cannot follow the antithesis of fact and idea will not be convinced by argument, philological or psychological. It seems clear enough to me that facts are the things *given* (or discovered), and ideas are the things *arising* from the contemplation of facts.¹

The clamour that universities should subserve utilitarian ends does not pass by the liberal subjects. State educational authorities are apt to view the arts course merely in its relation to the training of their teachers. Business men exert discreet pressures to induce teachers of economics to commend public policies which they as business men favour. Psychologists are urged to set up vocational testing bureaux for the public. Recently a group of bishops protested that the materialistic influence exerted by certain teaching in philosophy was turning their postulants from the religious vocation. It is difficult for Demos to resist the temptation to tell the professor where he ought to be going. It is even more difficult when the professor himself does not know where he is going. For that seems to be the trouble with our universities. We have lost our way. The

¹ The writer of Psalm 39 knew the distinction: ‘while I was thus musing the fire kindled: and at the last I spake with my tongue.’ See also Graham Wallas, *The Art of Thought*, *passim*.

will-o'-the-wisp that has misled us is specialization. It is exceedingly hard to combat because it presents itself as such a desirable thing. As individuals we have to face these alternatives: shall I go ahead into this narrow field, when I can, with some certainty, lay bare the facts and make a definite contribution to knowledge? Or shall I turn outward from my problem to the rest of knowledge and seek to establish relations between them? I cannot help thinking that most of us take the first, and the easier, course. A similar dilemma may also be posed to us as teachers. We are urged that our students should not be sent out into the world without this or that or the other new subject. Shall we then teach this extra piece of knowledge? Or shall we spend the time teaching our students to see the relations between what they have already been taught and other branches of knowledge? Again I fear we have chosen the first alternative. Our curricula become stuffed fuller and fuller, and some teachers begin to specialize in the new and narrow field, where they learn more and more about less and less.

All this means that our undergraduates come to a departmentalized university. Entering one department they are left in ignorance of the others. They are professionalized rather than educated. Let every university teacher in Australia lay his hand on his heart and ask himself whether he can possibly regard the average doctor or lawyer or engineer or teacher that we turn out as an educated man. Our crying need is the integration of knowledge. It cannot be pretended that this is recognized. The specialists meet the plea for it with the old jibe: 'Jack of all trades—master of none'. It is unfortunate for us in Australia that we have had so few amateur scholars. Our learning has been professionalized, if not professorialized. Our specialists forget that Grote and Macaulay were not professional historians, that Buffon, Darwin, and Wallace were not professional scientists,

that Ricardo and Bagehot were amateur economists, and Mill and Spencer amateur philosophers. Amateur! the very word is like a bell to toll the specialists back to their sole selves. What would they say to a civil servant and a member of parliament who, without ever having attended a university, wrote on philosophy, logic, economics, education, political science, religion, and socialism? Yet this is exactly what John Stuart Mill did. One's imagination reels at the thought of how they would greet a modern Bentham.

I am not here tilting at specialization in itself, but rather at the direction it is taking. Our research seems to me to be devoted to analysis, without any corresponding synthesis. We seem to love pulling things apart rather than putting them together. We look into the microscope but never see the microcosm. We are too busy with facts to bother about ideas. By all means let us have our Rutherfords breaking up the atom, but let us have also an Eddington trying to see the cosmic significance of it all. I should welcome more research into relationships; perhaps even a chair of Homology.

Nor does this apply only to the scientific side. Our liberal studies are far too departmentalized. Literature, economics, politics, psychology, history, and ethics are vitally interdependent, but far too often we leave it to our students to correlate them. I should like to see a composite course which would be compulsory on every student before graduation in any faculty. It would include some of the history of science of sanitation and of religious persecution, some logic, some psychology, some account of the influence of habitat and technique on human institutions, and a brief critical description of the Australian Constitution. The course would naturally be sketchy and would have to be done with a broad brush. There would be no examination, since the aim would be to lead these young doctors and

teachers and engineers and lawyers and scientists to an intelligent interest and understanding of the world they were going out to serve. This aim is certainly not realized by their specialist studies. A project like this might commend itself to administrators on the score of its cost; for all it would need would be a blackboard, some chalk, some maps, and an enthusiast on the rostrum. When such a course is suggested it is met with the objection that no one is capable of giving it. But why not several lecturers? Why not gather them from all the universities and let them repeat their contributions in the different centres? Care would have to be taken to see that such a course did not get lost in metaphysics and epistemology.

We in Australia seem to have lost sight of what Whitehead calls 'the imaginative consideration of learning'.¹ We have forgotten, if we ever realized, his warning that 'the spirit of generalization should dominate a university'. And how shall we answer his charge that the increasing departmentalization of universities has trivialized the intellect of professors? We are sometimes told that we could integrate our universities if we would accept the view that revealed religion and scientific truth cannot conflict. But that is not practical politics for us. We are definitely committed to be secular universities. Even were this not so, the existing sectarian situation in Australia would not allow the universities to endorse any doctrinal system. And we cannot get past the fact that, in workaday terms, the expression 'revealed religion' means doctrinal system. But why is it necessary to offer a philosophical or mystical justification in pleading for a greater degree of synthesis? There is surely justification enough in the realization that our students should not, even on the barest utilitarian grounds, be sent out into the world, full of information it may be, but ill equipped to

¹ A. N. Whitehead, *The Aims of Education*.

make that continuous and critical self-adjustment which is demanded of the citizens of a modern democratic community. It may be argued that universities have no business to assume that their graduates will go out into a modern democratic community. It may be said that a university should turn out citizens fit for any kind of community—nazi, fascist, communist, or democratic. To talk thus seems to me to be idle. Universities must take into account the economic, social, and political conditions of the community in which they flourish. A fascist university is not expected, nor indeed allowed, to train its students to be critical of governments. It accepts an absolute—the Nation State—and builds its educational synthesis round that absolute. But the states of Australia are modern democratic communities in the ordinary sense in which the term is used. They believe in representative institutions and majority rule. This is the environment into which our graduates proceed. It is an environment which demands of them, I repeat, a continuous and critical self-adjustment. It is an affectation to maintain that their fitness to function in that environment is no concern of our universities.

[TABLE IV.]

Table IV.—Incomes of Australian Universities.¹

	Sydney.		Melbourne.		Adelaide.		Tasmania.		Queens- land.		Western Australia.	
	1901	1935	1901	1935	1901	1935	1901	1935	1901	1935	1901	1935
Government Grant	£ 9,800	£ 57,050	£ 15,750	£ 55,550	£ 6,556	£ 55,100	£ 4,000	£ 12,770	£ 25,118	£ 26,549	£ 26,549	£ 26,549
Lecture and Exam Fees	11,619	74,640*	9,000	96,443	7,238	28,236	748	4,042	22,663	1,379 †	1,379 †	1,379 †
Other Sources	14,347	74,220	4,750	51,560	5,230	28,236	969	2,041	20,153	6,450 §	6,450 §	6,450 §
Total Income	35,766	205,910	29,500	203,553	19,024	111,572	5,717	18,853	67,934	34,378	34,378	34,378
Total Expenditure		201,342†		200,573		109,187		18,438	63,713	34,539	34,539	34,539

* Receipts from public examinations not included.

† Expenditure upon public examinations not included.

‡ Students pay no fees to the University of Western Australia.

§ Returns from private foundations for students' bursaries not included. The university acts only as a trustee in respect of such income.

¹ Figures for 1901 from T. A. Coughlan, *Seven Colonies of Australasia* 1901-2, p. 572. Figures for 1935 from *Commonwealth Year Book*, No. 30. 1937, p. 206.

*Table V.—Teachers and Students in Australian Universities,
1935.¹*

<i>University.</i>	<i>Established.</i>	<i>Professors.</i>	<i>Lecturers and Demonstrators.</i>	<i>Students attending Lectures.</i>
Sydney	1850	49	188	3,029
Melbourne	1853	36	194	3,071*
Adelaide	1874	19	114	2,072†
Tasmania	1889	9	22	229
Queensland	1909	14	75	1,089
Western Australia	1911	13	44	787
TOTAL	—	140	637	10,277

* Exclusive of 217 students at Conservatorium of Music.

† Exclusive of 262 students at Conservatorium of Music.

NOTE.—Further particulars of the Australian universities can be obtained from *The Yearbook of the Universities of the Empire* (Bell). This contains a note on the history of the Australian universities and a general description of the constitutions, the residential colleges, the fees, schools, institutes, and curricula. General information and personnel are supplied under separate headings for each university.

¹ From *Commonwealth Year Book*, No. 30, 1937, p. 206.

The University in New Zealand

A. J. HARROP

THERE is only one university in New Zealand, though one of the constituent colleges—the University of Otago, Dunedin—retains that title for historical reasons which will appear later. The other constituent colleges are: Canterbury University College, Christchurch; Auckland University College, Auckland; Victoria University College, Wellington; Canterbury Agricultural College, Lincoln; Massey Agricultural College, Palmerston North.

The governing body of the University of New Zealand is the Senate, which is constituted as follows: (*a*) the persons for the time-being holding office respectively as the Chancellor and Vice-Chancellor of the university; (*b*) four members to be appointed by the Governor-General as being persons possessed of business knowledge, administrative capacity, and interest in university education; (*c*) two members to be appointed by the Council of each of the constituent colleges; (*d*) five members to be elected by members of the General Court of Convocation (composed of graduates of the university); (*e*) three members, being professors of the university, to be appointed by the Academic Board; (*f*) the Director of Education in office for the time being.

The Academic Board, to which the Senate may delegate such powers of drawing up courses of study, of conducting examinations, and of appointing examiners as it thinks fit, and which the Senate must consult before appointing any

examiners or making or altering any statute concerning schemes of study, scholarships or prizes, is constituted as follows: (a) the Vice-Chancellor of the university; (b) the chairman for the time being of the Professorial Board of the four university colleges; (c) eight members elected by professors of the university; (d) two members of the Professorial Board of each constituent college; (e) one member to be elected by the professorial staffs of the agricultural colleges.

The constituent colleges of the university have their own governing councils. The colleges may apply to the university Senate from time to time for the recognition of their professional schools and must make an annual report to the Senate on such schools as are recognized. Appointments by colleges to professorial chairs have to be approved by the Senate.

This summary statement of the constitution of the university to-day will probably contain little to surprise even the reader more familiar with universities outside the British Empire. But to-day's position—more especially in regard to the powers of the professors as exercised through the Academic Board—has been attained only after striving.

Nobody who has delved at all deeply into the history of New Zealand can fail to be struck by the fact that nearly all phases of the country's development have been the subject of long and bitter controversy.

In the whole story of British colonial development it would be difficult to find a more contentious period than that in which New Zealand, much against the wishes of the British Government, was systematically colonized. 'Systematic colonization' had been evolved by Edward Gibbon Wakefield as an alternative to the 'shovelling out of paupers' which was the existing method of ridding the country

of surplus population. In his 'Letter from Sydney' of 1829, Wakefield set out a plan which was fated to undergo much modification, but which did emphatically exercise a great influence on British colonial policy. When the Government vetoed the plans of the New Zealand Association and insisted upon the formation of a company, Wakefield and his disciples complied; but when it seemed that even this sacrifice of principle was not sufficient and the whole plan was in danger of destruction, Wakefield, with characteristic impetuosity, hurried to Plymouth to despatch the company's survey ship, the *Tory*. The Government was forced, in order to keep control of a movement which might have embarrassing results, to send out Captain William Hobson to treat with the Maoris for the cession of sovereignty to the Queen, and, that successfully accomplished, to act as Lieutenant-Governor under the jurisdiction of the Governor of New South Wales. The New Zealand Company's first settlement was at Wellington. Hobson, after some preliminary explorations further north still, chose the shores of Waitemata Harbour on which to found his capital, Auckland. The fierce indignation which this action aroused in Wellington was a portent of things to come. Rivalry of the provinces was to be one of the most potent forces in the life of New Zealand, and it is impossible to convey any idea of the background of the struggle for university education without at least a brief reference to these infant communities, planted for the most part by the Company, completely isolated from each other in a land itself completely isolated by months of sea travel from Britain and 1,200 miles distant even from Australia.

Wellington was succeeded first by New Plymouth and Nelson, and then Wakefield's fertile brain conceived the idea of taking advantage of the Church disruption in Scotland to promote a Free Church colony in New Zealand.

It was some years after the disruption before the colony actually materialized, and the controversies that surrounded its origin are not relevant here; but eventually, in 1848, under the leadership of Captain Cargill, the first Scottish colonists arrived at Dunedin, in Otago. It is difficult to over-estimate the importance of the Scottish element in the colonization of New Zealand, and not least in the realm of university education, where it was seen in a laudable determination to open the University to all and a perhaps less laudable enthusiasm for lectures. Almost as important was the elaborate plan evolved by Wakefield and John Robert Godley for a Church of England colony which should set apart a considerable share of the proceeds of land sales for church and educational endowments. Canterbury became the site of this, the most complete trial of the Wakefield system, and Christchurch became the capital, the name commemorating the part of Christ Church, Oxford, men in the working out of the plan. The influence of Oxford is seen in the collegiate ideal of the University that was envisaged—an ideal which practical difficulties obscured but never quite obliterated.

For some years the colonists in all the settlements were occupied with the task of subduing the land they had chosen, and, though the climate was temperate, the task of the pioneer, in a land for the most part forest-clad, was difficult enough. The forest problem was solved by indiscriminate burning, and posterity was robbed of a wonderful heritage. The colonist's one desire was to clear his land, and he had no time to pay tribute to beauty or to worry about the effects of forest destruction on the rainfall of the future. Still less had he time to worry about problems of higher education. His mental energies, so far as they were not fully occupied by the day-to-day struggle with his environment, were mainly devoted to criticizing the New Zealand Company

for not fulfilling all its promises, and later on to demanding self-government.

Earl Grey, Secretary of State for the Colonies, gave the colony a constitution in 1846, but his masterful namesake, the Governor of New Zealand, Sir George Grey, saw that this was not likely to work properly and secured its suspension. Personal government by Sir George Grey was continued for a few more years, until at last the Constitution of 1852 gave the colony the right to govern itself. Grey's final act before going on leave (not to return to New Zealand for a number of years), was to bring first into action those clauses of the Constitution which provided for the setting up of provincial institutions. Whatever the final judgment of history on this policy may be, there can be no doubt that it was to affect considerably every phase of the country's life. The provinces, which grew in number and appetite until they were known as the 'nine sturdy mendicants', were almost as distinct as if they had been separate colonies, and the petty parliaments which were set up in all the capitals were the subject of considerable derision by Colonial Office officials, though the Office, usually surprisingly prescient, did not anticipate the evils which Grey's conception of the best method of working the Constitution seemed to involve. Some form of provincial self-government was obviously desirable in the conditions which existed in the middle of the nineteenth century, when communication between the settlements was irregular in the extreme and a voyage from any of them to Auckland or Wellington for a meeting of Parliament was something of an adventure. But the multiplication of local bodies and the perpetuation of local rivalries left a mark on the country which it will require a good many more generations to efface.

Though Otago and Canterbury were the newest settlements in the colony, their situation in the South Island

gave them immunity from native troubles, and when the Maori Wars from 1860 to 1870 crippled the North Island provinces and led to considerable migration to the south, the Scottish and Church of England foundations flourished. The gold discoveries in Otago and on the west coast accentuated the advantages of the southern settlements in the race for population. Between 1860 and 1871 Otago's population increased from 12,700 to 69,400, Canterbury's from 15,300 to 46,800, Wellington's from 13,800 to 24,000, and Auckland's from 23,700 to 62,300. Settlement of soldiers on lands confiscated from the Maoris helped to swell Auckland's numerical total, but in commercial importance Dunedin, the capital of Otago, was the centre of New Zealand and the South Island was the dominating island. It was quite natural therefore that, when the wars were virtually at an end and when the gold rushes had brought population and comparative prosperity, the first stirrings of interest in university education should be in Otago and Canterbury. In Canterbury, indeed, university institutions had been incorporated in the original plan of the settlement, for it was intended that Christ's College should be in two departments, the upper of university calibre and the lower a grammar (secondary) school. In the economic stress of the early days, the upper department ideal became obscured. But it survived and ultimately, thanks largely to the energy of the Principal, Canon J. Russell Wilford, in the decade after the War of 1914-18, provided Canterbury with a substantial element of residential college life which proved of great value not only to those—for many years only a few—who actually took part in it, but also as a stimulus for further efforts in the same direction both for men and women by the authorities of the University College.

In Otago one-eighth of the proceeds of the early land sales was set aside for religious and educational uses, and

part of this was allocated to the endowment of chairs in any university founded in Dunedin. In 1868 an Act of the General Assembly of New Zealand provided for eight scholarships to be held in universities in Britain and also enabled each province to reserve land up to 10,000 acres for the endowment of a colonial university when one was established. In the following year the University of Otago was constituted at Dunedin on 3rd June by a provincial ordinance. The influence of their native land was strong upon the Scots, and in addition the Presbyterian Church was anxious to have some means of training recruits for the ministry without sending them to Australia or to Scotland.

In the New Zealand of this period, less than thirty years old, burdened with debt and at loggerheads with the mother country on questions arising from the Maori Wars, the foundation of one university might well have been regarded as adequate for the whole colony, but it was scarcely to be expected that Canterbury, for one, would allow Otago a monopoly of university institutions. In August 1871, the Canterbury Collegiate Union was founded at Christchurch, and application was at once made for affiliation to the University of New Zealand, provision for which had been made by the General Assembly. The Government had originally intended to secure the amalgamation of the Otago University with the New Zealand University, which should have its headquarters at Dunedin. This solution did not appeal to Henry Tancred and William Rolleston, two of Canterbury's most prominent leaders, who favoured the establishment of a university as an examining body, controlling affiliated colleges in the different centres. Their views finally prevailed, after a controversy too involved to discuss here. Both Otago and New Zealand Universities petitioned the Crown for recognition of their degrees. Lord Kimberley not unnaturally felt himself precluded

from advising the grant of Letters Patent to two, 'or an indefinitely larger number' of universities in New Zealand. Otago eventually agreed to become a part of the University of New Zealand, retaining its title of University and its Chancellor and also its endowments. In May 1873 Canterbury College was established by the Provincial Council of that province and reserves created to help maintain it.

In April 1874, a joint deputation from Otago and Canterbury met the Council of the University of New Zealand, which was composed of representatives of the four principal settlements and Nelson, and expressed the view that in existing circumstances the best model would be the University of London, that the university should be strictly an examining body, and that its funds should be devoted to making the examinations thoroughly efficient and to establishing scholarships. This view was embodied in the New Zealand University Act of 1874, which settled the main lines of university policy.

It did not remove them, however, from controversy, and as early as 1878 a Royal Commission was appointed to enquire into the working of the university. The commission condemned the policy of indiscriminate affiliation of secondary schools to the university and recommended the establishment of university colleges at Auckland and Wellington. They should be 'colleges of the New Zealand University, following, in this respect, the precedent of the Queen's Colleges in Ireland established by the late Sir Robert Peel, which are called Colleges of the Queen's University.' Ample independence was to be given to all the individual colleges, whose Councils should contain equal numbers of Government representatives, professors, and graduates, with tenure for four years. Each college was to have a Professorial Board with wide powers. Examinations were to be conducted by persons resident in the colony. The sanction of the

University Senate was to be obtained before any new chair or lectureship was founded. It was hoped by this means to prevent 'the undue multiplication of technical and professional schools' and to give to each college a distinctive character. Dr. J. C. Beaglehole, whose recent work, *The University of New Zealand*, is the chief source for the facts contained in this essay, states that the Commission's report created considerable interest throughout New Zealand and Australia, and remains a cardinal document for the study both of our educational system and of the colonial mind. 'Unfortunately', he adds, 'it recommended the expenditure of money.'

At no time in the colony's history have its legislators carried extravagance in money matters as far as the higher branches of education. For a considerable time, after the first flowering of the model settlements had produced an unprecedented number—for a new colony—of able and enlightened men, the members of the General Assembly were to only a small extent men of university standing in education. They were anxious to give every member of the community the same opportunity to rise to the top which they had enjoyed themselves—but they saw little reason why they should be given greater opportunity. Primary and secondary education were fostered, but university education in the widest and best sense of the term was regarded as a luxury. There were special reasons in the period after 1880 for reluctance to incur additional expenditure on university education. The boom period which followed the adoption of Julius Vogel's great scheme for financing railways and other public works by external loans, and the dropping of the safeguards which he originally proposed, was at its end. Two more colleges would be expensive. In the end only Auckland was established—in 1883—and Wellington had to wait for Victoria College until 1899.

The Senate rejected the Commission's recommendation that degree examinations should in future be conducted in New Zealand (for a variety of reasons, some of which are comprehensible nearly sixty years later), but it must have needed great faith in the hall-mark of examination in England to subject students to the delays inevitable in those days. Even to-day, when cable and air mail services enable the results of the November examinations to be known in January, there is still a good deal of inconvenience. To-day, however, external examination is confined to advanced and honours work in some arts and science subjects and to engineering and some parts of the LL.M. and Mus.Bac. examinations.

Examination was the chief function of the university and, as was perhaps natural, the number of examinations increased rapidly. One of the defects of the New Zealand system of free, secular, and compulsory education was that it diverted to university courses of doubtful value—in the circumstances in which they were for the most part taken and given—many young people who were not mature enough intellectually to benefit from the other sides of university life. The pass degrees were of low standard until Professor Arnold Wall and others evolved a scheme in the years following 1907 for the study of progressively fewer subjects at a progressively higher standard. The entrance examination was a prerequisite for employment in many spheres and was not an adequate test of ability to profit by university work. That this was fully realized is shown by the fact that university bursaries were later given to students who spent an additional year at school after passing the matriculation examination which, in theory, testified to their fitness for university work. For scholarships to the university it was usually necessary to spend two or three years in the sixth form after the entrance examination had been passed. Yet all

these classes of students began their university careers by taking the same courses.

A searching criticism of the New Zealand system by Professor D. S. Jordan, of the Leland Stanford Junior University, California, who visited the country in 1907, stimulated local feelings of dissatisfaction, and the proceedings of the Royal Commission on the University of London in 1909 also contributed to assist a movement for reform. The University Reform Association was founded at Wellington in 1910 with Professor T. A. Hunter as secretary. Its objects were 'to increase the efficiency of university education, to improve and co-ordinate the government of the University and of the colleges, and to obtain for the colleges a larger measure of self-government; to obtain for the University and the colleges an assured finance; to secure the abolition of the external examination; and to improve the libraries and other equipment of the colleges'. The reformers wanted a Royal Commission—the most powerful tribunal of investigation obtainable in British countries—but this was to be denied them for a long period.

The professors of the different colleges had little or no share in their government, and the various college councils, though they were composed in the main of members able to give good service in general and financial administration, were not chosen for their fitness to undertake such academic tasks as 'the framing of curricula, the award of scholarships, the encouragement of research, the making of appointments'. Seven professors were members of the University Senate, but the others had only college status. In 1912 a visit by Lord Bryce and a report by George Hogben, Inspector-General of Schools, which envisaged more adequate expenditure on university education, and the proceedings of a professorial conference which reached unexpected agree-

ment on a number of controversial topics, were important events. The Senate, however, rejected most of the professors' proposals and abolished their conference. This led to petitions to the New Zealand Parliament and 'a compromise between compromises'. A Board of Studies was set up, with five representatives from each Professorial Board, and statutory grants were made to the colleges. National Research Scholarships in Science were established. The University Amendment Act of 1914, which made these changes, was passed shortly after the outbreak of war.

The Board of Studies was soon involved in controversy with the Senate which largely centred on the question of external examination. The Chancellor of the University of New Zealand, Sir Robert Stout, held strongly to the view that an external check on university standards was necessary. With only one university in New Zealand, and local external examiners not readily to be found in many subjects, the Chancellor argued that examination by leading scholars in Britain was the best way to give standing to the university's degrees. His opponents quoted occasional mistakes of the external examiners; but no system of examining, external or internal, is immune from error. In 1921 the Senate agreed to allow pass examinations to be conducted by the professors and an assessor with the right of final decision. In 1925 it agreed that examination at the pass grade should be carried out by two of the four professors of the subject. Since that year the responsibility for examination has been gradually transferred to the professors, who have the right to decide how their students shall be examined. They have to agree on a scheme and this requires the assent of the Senate.

In 1925 the second Royal Commission, demanded for so long by the reformers, reported on the university. The members were Sir Harry Reichel and Mr. Frank Tate.

They proposed that the university should become a federal institution 'charged with definite responsibility for teaching, but allowing to the constituent colleges greater freedom in developing their own curricula and in holding examinations'. The governing body should in all academic matters act on the advice of the Academic Board, a modification of the existing Board of Studies. A Principal of the University should be appointed. The governing body should be composed of men with not only a broad and national view of university education, but with judicial minds and a good knowledge of administration, especially that largely carried on by delegation of powers. The Commissioners regarded representation of the professors on the college Councils as essential. The professors, as a body, were underpaid and overworked. The lecturers were inadequate in number, grossly underpaid, and with little prospect of academic advancement. The staff should have time for research in their subjects, while the provision of a sabbatical-year system was a vital necessity. Too much time was spent by professors in marking examination papers, so that even in the long vacation little time was left for research. The college libraries were completely inadequate and a capital grant of £10,000 should be spent at once exclusively on works of reference.

The recommendations of this Commission came in a year scarcely more favourable to increased expenditure than was 1879, when the first Royal Commission reported. The post-war boom had passed. The New Zealand University Amendment Act, 1926, reconstituted the university as a federal institution, with four constituent colleges. There was provision for the appointment of a Principal but not for paying him. There was no provision for increased grants. Each college must submit to the Government an annual financial statement.

This last provision was an ominous foretaste of increasing Government control over the university through its finances. The university's scholarship fund, built up from reserves in the past, was a constant source of temptation, and even when not directly threatened, its very existence, which should have been a source of credit to the university, tended to stem the flow, never very fast, of Government assistance. The appointment of a Principal was not proceeded with, partly for financial reasons, and instead a part-time paid Vice-Chancellorship was instituted. This post, which was purely administrative, was accepted by Professor (now Sir) T. A. Hunter, who had played so prominent a part in the early reform movement. His efficiency and energy have done much for the university. Without them and the efforts of the University Treasurer and other members of the Executive Committee of the Senate the effects of the world depression of 1929-35 on the university must have been even more serious. Deprived of the Government grant and with other sources of revenue diminished, the university and the colleges were in a serious plight, reflected in many directions besides cuts in salaries. But the storm was weathered, and at the time of writing (1939) adequate financial arrangements for the university are foreshadowed in the reconstruction of the country's educational system which the present Minister of Education has in hand. Already increases in salaries and staff have been made and the most urgent building requirements are being considered.

In this necessarily somewhat sketchy account of the historical development of the University of New Zealand, we have seen how the collegiate idea of the early settlers of Canterbury became obscured through economic stress. When a university did emerge it was the London system of external government, combined with 'a high development

of the lecturing system brought to New Zealand mainly from the Scottish universities',¹ which prevailed. The division of the country into provinces had a very marked influence on university development, precluding the possibility of having one university for the whole country, which, with a liberal bursary system, would have been the ideal solution. In no sphere was provincial rivalry more marked than in the provision of special schools. Otago was early in the field with its Medical School, but it was some time before Canterbury relinquished the idea of establishing another one. Canterbury's monopoly of engineering was challenged by Auckland, and now only the final year of the course must be taken at Canterbury. Forestry is a vital matter for New Zealand, largely owing to the excessive zeal of earlier generations in burning trees to clear land, much of which would have been far more valuable with trees on it, but it can scarcely be denied that one School of Forestry could train enough men for the Dominion's needs. Schools were established at Auckland and Canterbury, but both have fallen to the axe of so-called economy. Auckland has an unchallenged School of Architecture. Victoria has just established a School of Public Administration which is not likely to be challenged. But it is an undoubted fact that there is much duplication of effort in the constituent colleges of the university, which the appointment of a Principal might have avoided to some extent.

To-day the university is beginning to recover from the worst effects of the financial depression. Professorial salaries are being raised and better provision made for the sub-professorial staffs. This improvement of status has a double effect, for it makes for better work in the university and also increases the competition from abroad for

¹ J. B. Condliffe, *New Zealand in the Making*, p. 453.

vacant posts, which are almost invariably advertised in Australia and in Britain, where a committee convened by the Universities Bureau of the British Empire in most cases interviews the candidates and reports to the Council of the college concerned. More important perhaps than higher salaries for professors is the provision of greater leisure, more time for research, and the possibility of going overseas at fairly frequent intervals. This is the more necessary as examinations become internal, but it is not so easy to arrange. So much examining has been done by professors in the past that it has become almost a tradition for part of the long vacation to be devoted to this purpose. To replace this tradition by another—that the vacations should be free for original work—will be a difficult process. Except in certain scientific subjects, little original work has been possible for New Zealand professors in the past. They have been too busy giving lectures to students of very varying degrees of maturity. With adequate assistance and an adequate standard for entrance to the university, much more time should be available for individual contact with honours students and independent work.

At the present time the number of full-time students in the constituent colleges of the university is about 1,800, while part-time students number about 2,670. The proportion of full to part-time students varies greatly in the colleges, as the following figures show [Table VI]:

Table VI.—*University of New Zealand: Student Enrolments, 1936-7.*

	<i>Full-time Students.</i>	<i>Part-time Students.</i>	<i>Extra-mural Students.</i>
Otago	904	472	—
Canterbury	424	589	112
Auckland	289	749	155
Victoria	173	674	277
Canterbury Agricultural College	47	—	—
Massey Agricultural College	66	117	—
TOTAL	1,903	2,601	544

Source: *The Yearbook of the Universities of the Empire*, 1938, pp. 605 ff.

The influence of British universities has been seen in the growing desire to provide halls of residence where students may have the benefit of contacts with others of different

faculties. Otago and Canterbury have halls for men and women. Auckland is not so fortunate. Victoria has a small hostel for women (not controlled by the college) and Weir House, an excellent residential hall for men, provided by the generosity of Mr. William Weir. His bequest of £70,000 was robbed of some of its value by a change of Government policy (after the foundations had been laid) in regard to such gifts, the 'pound for pound' subsidy being withdrawn. This illustrates one of the fundamental defects of university organization in New Zealand. There is no security against sudden changes of policy on the part of the Government of the day. When wool and butter are commanding high prices, and the economic barometer of the Dominion is set fair, grants are available for university and colleges, and bursaries are distributed with a liberal hand. When prices are low and economy the order of the day, grants are cut down or abolished at a moment's notice and boys and girls who ordinarily would receive a university bursary are thrown prematurely upon an overcrowded labour market. It requires no very acute intellect to perceive a remedy—a middle way between parsimony and liberality. If a small body, like the University Grants Committee of Britain, could be set up to administer a definite minimum annual grant for university purposes, much of the uncertainty which has made long-term policies impossible would be avoided. Such a body, unswayed by provincial considerations, would exercise a salutary influence in evolving a university policy suited to the needs of the whole country.

There are encouraging signs at the present time that the university of New Zealand is entering on a period of advance towards the true ideal of a university—an ideal which was at least kept alive throughout the days of intellectual pioneering by professors whose names are deservedly honoured

to-day. The students of to-day are banded together in a New Zealand University Students' Association, which has its headquarters at Wellington. Facilities for residential college life are improving, and there are even signs of the beginning of a tutorial system which may help to modify the lecturing tradition. A development of college life in which returned travelling scholars of the university and others might be enrolled as fellows of their college and encouraged to give the benefit of their experience to others seems to me devoutly to be hoped for. Another development, less easy to facilitate, would be towards the provision of some central residential college for post-graduate work where members of all the constituent colleges might meet and gain the stimulus of personal contact with workers in the same and allied fields which is sometimes lacking in a small college. Its central situation and access to libraries might make Wellington suitable as the centre for this college, which could function at first, perhaps, as an addition to Weir House. A clearing-house of ideas on economic and social topics, this central college would be akin in some of its aims to those of Nuffield College, Oxford, and would have an obvious place in the adult education movement by providing leaders of groups.

Isolated as she is, New Zealand depends largely on books for contact with the outside world. It is not too much to say that in the past the libraries of the various colleges have been completely inadequate. Recently, thanks to the Carnegie Corporation, some of the worst gaps have been filled. A report of the College Librarians in 1936 gave some interesting particulars, from which those in the following table are selected [see Table VII overleaf].

Table VII.—Libraries in the University of New Zealand, 1935.

	<i>Books (Dec. 1935).</i>	<i>Floor Area in sq. ft.</i>	<i>Seats.</i>	<i>1936 Grant for Books, etc.</i>
Auckland	29,600	6,216	175	£834
Victoria	34,500	5,762	160	£536*
Canterbury	27,000†	6,300	93	£400
Otago	35,000	3,927	40	£785‡

* Plus Carnegie grant £1,250.

† Canterbury also has the Macmillan Brown collection of 15,000 books, but access to these is not easy.

‡ Plus medical library.

It may be said that the library question is in process of being solved, though with so small a total of books to begin with—and many of these of little value—there is much to be done.

The tendency in college administration is shown by the recent appointment as Principal of Victoria University College of Professor T. A. Hunter. Canterbury has had a Rector since 1921, and though in both cases professorships are retained, the principle of having a permanent academic head, as in British universities except Oxford and Cambridge, is established in these two colleges as in the university, and it is not improbable that it may be followed by one or both of the other colleges in the centres. A development of considerable interest is the provision for the two agricultural colleges, Canterbury and Massey, of a joint governing body

to facilitate co-ordination of research and minimize duplication of effort. One, at least, of the lessons of university history in New Zealand has been learned, and the experiment may influence more than the administration of agricultural colleges.

New Zealand's university problems have been in some measure peculiar to herself, but what her history has to tell of the evils of government interference with academic questions can be paralleled in other places. Some aspects of the struggle for academic freedom in the Dominion—and especially the right of members of the staff, visiting or permanent, to express their own political views—have commanded attention abroad, and to-day recent appointments and developments indicate that the battle is won, though it is unsafe to prophesy too confidently in a world of warring ideologies and a Dominion blessed with triennial parliaments. In one department the university has maintained for many years an enlightened policy worthy of emulation. It has offset isolation, to the limit of its funds, by the grant of travelling scholarships, and here it should be pointed out with gratitude that its efforts have been supplemented by the grant each year of a number of free passages by the shipping companies. Many travelling scholars do not return, owing to the lack of suitable posts, but the very freedom they win for themselves saves New Zealand from the reproach of being entirely an intellectual backwater. Recently the propriety of revising the conditions of entrance to the Civil Service to provide for admission of graduates after completing a full-time university course—at present made virtually impossible by the regulations and customs of the Service, except in scientific departments—has been widely discussed, and something may shortly be done about it.

How far has the university succeeded in producing leaders

of the community? In politics in the early days of the colony there were many graduates of British universities but as these retired from the scene there were few recruits from the University of New Zealand to take their place. Farmers naturally predominated in Parliament, and even when the urban drift began there seemed a marked reluctance on the part of university men to enter the political fray. Recently, there has been some improvement in this respect but it can scarcely be said yet that the university has achieved its rightful influence on political thought in the Dominion. In the development of the resources of the country, however, it may be said that New Zealand scientists and engineers have played a prominent part. The Department of Scientific and Industrial Research, largely staffed by New Zealand graduates, is doing good work, and much research into farming problems has been undertaken in recent years, thanks to a greater appreciation on the part of the farming community of the necessity for continuous progress if New Zealand is to continue to compete successfully with other countries much nearer European markets. The Departments of Education and Economics of the colleges have made many valuable contributions to the solution of current problems. That much more might be done for the community by the university if a greater proportion of the country's expenditure on education were devoted to the university is certain. Government control of university finances is possibly inevitable in a young and democratic community, but this should not prevent the planning and carrying-out of long-term programmes of work. There is evidence that the Government of the day agrees with this view, and there is, therefore, some reason for regarding the future of the University in New Zealand with cautious optimism.

PART III: INDIA

The Universities of India

J. C. GHOSH

THE present Indian universities have all grown up during British rule, and their system of education and organization is one that has been borrowed from England. A few words may, however, be said by way of prelude about some of the educational institutions of pre-British times which approximate closely to the modern conception of the University.

The history of pre-British education is that of the Hindu, which comprises the Brahmanic and the Buddhist, and of the Mohammedan systems. Hindu learning began to decay with the disappearance of Hindu rule in the twelfth century A.D., and there was an almost total extinction of learning, whether Hindu or Mohammedan, when the Mogul empire declined in the eighteenth century. The ancient Hindus were the pioneers in many fields of thought, and the tradition of Hindu learning is one of the oldest in the world. From early times there were in India towns which were great intellectual centres, containing a large number of teachers proficient in different branches of learning, and students who came from far and wide. Mithila was one of the oldest and best known of such centres, as was Taxila, where the Greeks at the time of Alexander's invasion (326 B.C.) first came into contact with Brahman philosophers. Some of the later centres, such as Benares, Nadia, Puri, Sringeri, Badari, and Dwarka, still exist, though in dwindling condition. These centres are to be regarded as the earliest

universities in India. Their colleges, variously called *Tōl* or *Chatuspathi*, provided for higher learning, and they had a system, that of the *Parishad*, by which the highest authority in all matters connected with learning was vested in the teachers. The *Parishad* was a representative assembly composed of teachers representing the different faculties, with the addition of a representative of the students, a householder, and a hermit. The *Parishad* reminds one of the associations of teachers in medieval Europe which developed into the modern European universities. The Brahmanic institutions of the present day award degrees, a system that has existed for a long time, but whether it goes back to very early times cannot be ascertained.

Buddhist education arose out of the Brahmanic, was largely modelled on it, and was ultimately absorbed by it. But it was in its points of variation from the Brahmanic that the Buddhist system came closest to the modern conception of the University. By opening its doors to all communities, especially to the vast masses of the Sudra or non-Aryan community—a group not admitted to the Brahmanic system—Buddhism gave education a general character and scope. As Buddhist education was centred in the monastery, conditions became favourable for the development of the University as an organized and self-governing institution with a central authority at the top. The tremendous intellectual activity and spiritual idealism realized by Buddhism continued for many hundred years, and Buddhist kings and merchants endowed institutions of learning on a scale that was truly vast. The magnificence of the Buddhist universities, especially that of Nalanda, was one of the glories of the ancient world.

Arabic and Persian learning came to India with the Mohammedan conquest. But it never became widespread or deep-rooted, being confined to the minority population

of the Mohammedans, and to a small number of Hindus who adopted it for professional purposes. Arabic was the vehicle of Mohammedan higher learning, which was given in the colleges known as *madrasas*. The great defect of Mohammedan rule in India was that, except for brief periods, such as the reign of Akbar (1555-1605), it never created the necessary order and tranquillity for the growth of learned institutions. That is one of the reasons why in Mohammedan times there was no further development of the university system in India.

British occupation of India begins with the eighteenth century, which was a period of complete chaos. The country was harried by native and foreign adventurers who were cruel, unscrupulous, rapacious, and constantly at war with one another. The founders of the British Empire in India were not infrequently tainted with corruption, and such things as education formed no part of their plans. The people were reduced to the utmost poverty and misery, and science and learning were almost non-existent. Thus, the first Lord Minto, then Governor-General, animadverted before the Board of Directors of the East India Company: 'Science and literature are in a progressive state of decay among the natives of India. . . . The number of the learned is not only diminished but the circle of learning, even among those who still devote themselves to it, appears to be considerably restricted, the abstract sciences are abandoned, polite literature neglected, and no branch of learning cultivated but what is connected with the peculiar religious doctrines of the people.'

This was written in 1811, though towards the end of the eighteenth century the British Government had begun somewhat to realize its responsibility regarding education. Warren Hastings founded and endowed the Calcutta Madrasa

in 1781, the first educational institution in India established through British influence. In 1792 Jonathan Grant founded a Sanskrit college in Benares, and the Government supported it with grants. In 1813 the Government decided to set apart the annual sum of a lakh¹ of rupees for educational purposes. The object of the grant was the provision of Hindu and Mohammedan learning.

But the Hindu and Mohammedan systems, through their long decay, had degenerated into empty traditionalism and formalism. They were dominated by too much reverence for the classics, and were almost exclusively literary, and religious or semi-religious, in character. They consisted in the memorization of ancient works and the commentaries thereon; and they had accumulated, through the ages, a mass of futile and hyper-subtle intellectual speculation, as had the learning of the schoolmen of medieval Europe. That is why one is grateful to the forces that were then operating in India for the introduction of the new European learning. These were, firstly, the Christian missionaries who, whether with the object of evangelizing Indians or of educating them, founded schools and colleges in India. But the more vital urge for European learning came from among a number of enlightened Hindus who saw in it the secret of the superior efficiency of the European people, and who were anxious to import that learning in order to lift their country out of the degeneration into which it had sunk. Ram Mohun Roy was the greatest of these Indians, and he was supported by a number of liberal-minded Englishmen. The result of their activities was the foundation, in 1817, of the Hindu College in Calcutta, the first institution of English education—as the teaching of European arts and sciences through the medium of English came to be called—in India. A further advance was made in 1835 by the establishment of

¹ A lakh = 100,000.

the Calcutta Medical College, whose object was the teaching of European medical science. The passing in England of the India Act of 1833, by giving British subjects free admission to India, introduced a period of intense missionary activity which, combined with government and private Indian effort, brought about a rapid increase in the number of English schools and colleges.

In 1813 the policy of the Government was the promotion of oriental learning. The government official who was mainly responsible for its alteration in favour of English education was Lord Macaulay, the author of the famous Minute of 1835. Macaulay's Minute was adopted by the Government, who declared that all funds for educational purposes should henceforth be mainly expended on English education. Other changes powerfully contributed to the firm establishment of English education. The freedom of the Press was established in 1835; English was substituted for Persian as the language of the law courts in 1837; and in 1844 the Government declared that preference would henceforth be given to men who had received English education in the selection of candidates for public employment. The rate at which education, especially English education, spread can be seen from the fact that while the Hindu College started in 1817 with the modest number of 100 pupils, there were more than 25,000 pupils in the government schools and colleges of Bengal, Bombay, and Madras in 1852, and nearly 10,000 of them were receiving English education. The figures would have been higher if the pupils in non-government institutions had been included.

The most remarkable event in the history of Indian education was the Despatch of 1854, the work of Sir Charles Wood. The Despatch outlined the complete and systematic organization of all aspects of Indian education, and deter-

mined their future course. What is particularly relevant to the present essay, it inaugurated the Indian universities. The first successes of English education had been striking, both in regard to the number of pupils who attended schools and colleges and the degree of efficiency attained by them, and the demand for properly organized higher education was rapidly growing. Thus the Universities of Calcutta, Bombay, and Madras were founded in 1857, and those of Allahabad and the Punjab followed between 1857 and 1887. How great was the demand for university education can be seen from the fact that while there were 244 candidates for the matriculation examination of the Calcutta University in the year of its inception, the number of candidates had risen to 1,902 in 1871, and to 2,937 in 1881. On the financial side, the Calcutta University cost the Government Rs 12,000 in the year of its inception. But in 1872-3 it had become self-supporting, though its total expenditure had risen to Rs 46,500; and in 1873-4 it had accumulated a balance of Rs 6,000. The enthusiasm which the University evoked was thus described by Sir Henry Maine in his convocation address in 1866: 'The thing must be seen to be believed. I do not know which was the more astonishing, more striking—the multitude of the students who, if not now, will soon be counted not by the hundred but by the thousand; or the keenness and eagerness which they displayed. For my part, I do not think anything of the kind has been seen by any European university since the Middle Ages.'

In education, as in other aspects of cultural life in the nineteenth century, the development in Bengal was far ahead of that in other provinces of India. When the universities came in 1857, Bengal proper (i.e. excluding the North-West Provinces and Oudh which were under the jurisdiction of Calcutta University) had fourteen colleges and 921 students; Madras had one college and 302 students; and

Bombay had two colleges and 103 students. When the question of establishing universities in India was first discussed, it was almost entirely a question of Bengal. It was there that the proposition was put forward, and it was only there that existed the conditions justifying the establishment of a university.

The great defect of the government policy adopted in 1835 was that no attention was given to primary education. Energy was concentrated solely on secondary and higher education, government funds almost wholly expended on it, and it was supposed that the education so imparted would filter down by a natural process to the lower classes. The anticipated filtration did not take place, and there was a rapid expansion in the number of higher institutions quite out of proportion to that of primary schools. The Despatch of 1854 sought to remedy this by laying the highest emphasis on primary education. To carry out the new policy, Departments of Public Instruction were set up in the provinces, and the previous policy of expending government funds on a few schools and colleges managed by the Government was given up in favour of the system of grants-in-aid. By this system partial aid was to be given by the Departments to all institutions which applied for it and which reached an approved standard. The object was the dual one of the encouragement of private enterprise in establishing educational institutions and the encouragement of all types of education, primary, secondary, and university. Some expansion of primary education followed. But as the introduction of the grants-in-aid system coincided with the establishment of the universities, the main effect of the system was seen in secondary education. A disconcertingly large number of secondary schools grew up with the sole object of preparing candidates for the matriculation examination of the univer-

sities. The demand for English education, the passport to government and other employment, had always been great; with the coming of the universities it became tremendous.

This was partly due to the growing ambition of the new Indian middle and upper classes that sprang up with, and prospered on, the economic system introduced by the British; but more to the impoverishment of the peasants, handicraftsmen, artisans, small traders—in short, the masses of the working and lower middle classes—that was brought about by the same cause. The hereditary occupations pursued by these classes for centuries now either disappeared or did not offer a livelihood, and parents taxed their resources in order to give their sons a school and college education in the hope of qualifying them for some such profession as the civil service, law, teaching, or at least a clerkship. With the destruction of the indigenous Indian industries and the consequent disruption of Indian village life that went on during the nineteenth century, people flocked to the towns, where in the course of a generation or two they swelled the numbers of the educated unemployed. The process is still going on, so that even to-day it is possible to find graduates of Indian universities who consider themselves fortunate if they can obtain a job worth £20 or £25 a year.

The establishment of the universities not only stimulated secondary education at the cost of primary, it also brought about a deterioration in the quality of the secondary. Large numbers of the secondary schools which came into existence after 1857 were badly equipped, but the demand for them being great, they were able to support themselves on fees, and so to dispense with the standard of efficiency imposed by the government grants-in-aid. The Department of Public Instruction had no authority over schools which did not accept grants-in-aid. The only control over them

was that which was exercised by the University through its matriculation examination, the goal of the hosts of students who kept them alive. The process of deterioration which began in this way did not remain confined to secondary education, but extended to university education. For many of the students who came up to the University from these schools, though they could pass the matriculation examination, were ill suited to follow the university courses intelligently. There also began the highly unsatisfactory system by which the University, with no funds at its disposal and with no machinery for supervision and inspection, was given the responsibility for granting recognition to schools, and the Department for Public Instruction, having no authority over unaided schools, shut its eyes to their many defects. Thus began many evils, and it is only recently that attempts have been made to remove them by the creation of independent boards of secondary and intermediate education.

With the Education Commission of 1882-3 began that period of reaction in Government policy which cannot be said to be over yet. As a matter of fact, with the exception of a few brief periods, such as that of the Despatch of 1854, the practice of the Government has never tended to encourage education as such, but rather to create a body of Indian clerks and petty officials who would serve the cause of British administration. In 1882-3, as the result of the policy introduced in 1854, the demand for education was showing signs of developing into the mass demand that it is to-day. So it is all the more regrettable to find that the Government put on the brakes, instead of meeting the demand generously and directing it into profitable channels. It is possible to argue that the reason for this was, partly at least, political. Reviewing this period the Calcutta University Commission said: 'It is impossible to estimate aright the educational development of this period without

considering it in the light of the concurrent political development. Fifty years' study of English literature, English history, and English political theories had made the educated classes of India, and especially the *bhadralog* of Bengal, familiar with the phrases and forms of western politics, and had inspired them with the desire to reproduce in India the methods of self-government, which seemed to be triumphant in the West. The Indian National Congress was soon to begin its sittings.¹

The evils that had crept into secondary and collegiate education as the result of the grants-in-aid system were already apparent. Yet the Commission of 1882-3 advocated the extension of the system, and recommended the withdrawal of the Government from collegiate education as well. Following the new policy, the provincial Governments withdrew as rapidly as possible from secondary and collegiate education, except for the maintenance of a small number of model institutions. Primary education was relegated to the municipalities and local corporations which, besides being poor, had just come into existence. In its fatal desire to restrict expenditure on education, the Government deliberately closed its eyes to the fact that, owing to the poverty of Indians, schools and colleges cannot be maintained efficiently on the low fees which parents can be expected to pay. Most of the evils which still exist in the educational system are traceable to the reactionary attitude of the Government that began with 1882-3. To quote the words of the Calcutta University Commission: 'The effects of thrusting responsibility upon the local boards were not altogether happy; and instead of an increase, there was a decrease in the expansion of primary relatively to secondary education during the period. The preponderant and disproportionate development of the secondary branch,

¹ Calcutta University Commission, 1917-19, *Report*, vol. i, pp. 49-51.

which the Commission had deplored and hoped to cure, was actually intensified between 1882 and 1902.' ¹ Regarding collegiate education: 'Their main policy, that of reducing Government expenditure in this sphere, and encouraging local and private effort, was essentially irreconcilable with any large scheme for deepening and strengthening the intellectual vitality of the colleges. Extensive, not intensive, growth was the necessary result of the policy which they recommended; and most of the new colleges which were stimulated into existence by their policy during the following twenty years were necessarily weak, understaffed and incapable of affording the individual attention to the needs of the student, or of providing the varied courses of study, practical as well as literary. . . . The main feature of the twenty years following 1882 was to be the rapid creation of colleges which depended mainly or wholly upon fees, and thrived as coaching institutions, rather than as places of learning.' ²

The apathetic attitude of the Government, and the unhappy state of education for which it has been mainly responsible, will be seen from the facts and figures given below. It is necessary to know them for the special reason that they throw light on the basic difficulties with which Indian university education is confronted. In respect of literacy, there is, scarcely a civilized country which presents such a low standard as British India. This is due to the paucity of schools, and not to any innate incapacity of the people, as is sometimes suggested. For three of the Indian States, though much poorer than British India, possess greater literacy. The Indian Statutory Commission, commonly called the Simon Commission, reported that in 1921 the percentage of literacy was 8.2 in British India, 14.3 in Baroda State,

¹ Op. cit., vol. 1, p. 54.

² *Ibid.*, pp. 59-60.

21·6 in Cochin State, and 27·6 in Travancore State.¹ The Government Report of 1935-6 stated that of the total British Indian population of 271·7 millions, not more than 13·8 millions, or 5 per cent., were receiving education in all kinds of institutions. The percentage of male scholars to the total male population of that year was 7·7, and that of female scholars to the total female population was 2·2. Only 1·2 per cent. of the population could read and write English, the official language of the country.

Compulsory primary education has been discussed for some years, and the legislatures have declared themselves in favour of the principle, but by 1935-6 only 160 urban and 3,206 rural areas had done anything about it. The number of villages in rural areas with compulsory primary education by that year was 10,355. How very inadequate this is will become clearer when it is remembered that there are 500,000 villages in India. The primary schools are, as a rule, badly housed and badly staffed. The entire system is characterized by hopeless inefficiency, wastage, and stagnation. One reason for this is the large number of single-teacher schools, which was 57·5 per cent. in the case of boys' primary schools in 1934-5 (the percentage would be higher if the figure for girls' schools were available). Another reason is the paucity of trained teachers, who in 1932 formed only 50 per cent. of the total number of primary school teachers. In spite of this, government expenditure on training-schools in 1932, the last year of the quinquennium 1927-32, actually showed a decrease in comparison with 1927, the last year of the previous quinquennium.

Not only in training-schools, but in all types of educational institutions, government expenditure has always been

¹ *Report of the Indian Statutory Commission*, vol. i, p. 382. In the other Indian States the standard of literacy is as low as in British India, or lower.

stinted. The Simon Commission Report¹ showed that out of the total amount raised by taxation in British India, the Government spends 3s. 6d. per head of the population on the army, and less than 9d. per head on education. Though the population of British India shows an increase of 24 millions between 1929-30 and 1934-5, government expenditure on education for the same period shows a decrease of Rs 17,000,000.² In 1928-9 government expenditure on education in British India for a population of 240 millions was under £10,000,000, while in Great Britain in the same year it was over £50,000,000 for a population of 40 millions.

The five universities which came into existence between 1857 and 1887 were all of the affiliating type, constituted on the model of London University as it was in 1857. Much can be said in favour of affiliating universities, especially at the time of their inception in India. The expense of their creation was little; they provided the Government with an effective and impartial means of testing the qualifications of candidates for public service; they regulated and standardized the work of the existing colleges; and they accelerated the zeal for European education among Indians. On the other hand, the universities were organizations quite distinct from the colleges. They were examining and regulating, not teaching, bodies. They were corporations of administrators, not of scholars. The work of teaching was done by the self-contained colleges, according to curricula prescribed by the University over which the colleges had, as such, no direct power. A great defect of the Indian universities is that, as at the time of their inception, their ruling bodies are mainly drawn, not from among the teachers responsible for the actual work of teaching, but from among lawyers, doctors, administrators, and other such people.

¹ Op cit., vol. i, pp. 358, 363.

² 1 Rupee = 1s. 6d.

If the colleges had no control over the University, the University in its turn had no control over the colleges beyond prescribing their curricula and conducting their examinations. To quote the words of the Calcutta University Commission: 'The only relation established between the University and the colleges was that of "affiliation", whereby the "affiliated" institution was licensed to provide instruction and to present candidates for particular examinations. . . . The power of granting or withholding affiliation ought to have implied the power and duty of exercising supervision over the staff and equipment of the colleges. But no such functions were imposed upon the University until 1904. Each college, as it was affiliated, was left to its own devices, and there was no guarantee that the degree of efficiency which had won for it its original recognition was maintained or increased.'¹ As has been already seen, the government policy of withdrawal from collegiate education and the extension of the grants-in-aid system in 1882-3 brought about a large and rapid increase in the number of ill-equipped colleges and students. When one adds to this the large areas the universities had under their jurisdiction at the time, one can form an idea of the overburdening, and the consequent deterioration of standards, that set in.

The Universities Act of 1904 put into effect the recommendations of the Universities Commission of 1902. It had as its object the tightening up of control, on the part of the Government over the universities, and on the part of the universities over the colleges. The Chancellors of the universities, i.e. the Viceroy in the case of Calcutta, and the provincial Governors in the case of the other universities, were empowered to nominate 80 per cent. of the members of the Senates, and to approve the election of the remainder. All new university regulations and changes in existing

¹ *Op. cit.*, vol. i, p. 46.

regulations were made subject to government sanction. The control of the universities over the colleges was increased by strengthening the conditions of affiliation and by prescribing the right of inspection. Some good results followed, but in actual practice the main effect of these bureaucratizing measures was to make heavier the already overlaid machinery of the universities and of the Departments of Public Instruction. The Senates were reduced in size, and it was laid down that at least two-fifths of their members should be teachers, but no provision was made for the direct representation of the teachers, or of the colleges, as such. It was desired that the universities should assume teaching functions, but nothing was done about the matter for several years. Neither the Commission nor the Government discussed whether the affiliating system could be replaced by any other mode of organization, or studied the university problems in relation to school problems.

So the unsatisfactory situation continued. The Government of India made an attempt to grapple with it in the Resolution of 1913, but nothing practical followed, mainly because of the War. In 1904 the number of candidates for the Intermediate Examination was 457 in Bombay University, 2,430 in Madras University, and 3,832 in Calcutta University. In 1917 the numbers for the same examination had increased to 1,281 in Bombay, 5,424 in Madras, and 8,020 in Calcutta University. The Calcutta University Commission, after quoting these figures, commented: 'Nor is it easy to find any parallel to it in any part of the world. The flood of candidates for university training has put so heavy a strain upon the University and its colleges as to lead almost to a breakdown. It has brought out in high relief every deficiency of the system.'¹

The Calcutta University Commission was appointed in

¹ *Op. cit.*, vol. 1, p. 19.

1917. Its terms of reference were wide, including investigation into the conditions of school education in so far as they affected the efficiency of university education. The Commission was primarily concerned with the Calcutta University, but its criticisms and recommendations admitted of a wider application, and were considered by the other universities. The most important recommendation was the institution of new universities of the unitary type, not merely as a means of relieving the overburdened affiliating universities, but for the greater reason that the unitary type was educationally sounder. Following the publication of the Commission's report in 1919, fourteen new universities have been established. Some of these are of the affiliating type, but the majority are of the unitary or semi-unitary type. There are now fifteen universities in British India,¹ and three—Mysore, Osmania, and Trivandrum—in the Indian States. They are described below:

<i>Universities in 1939.</i>	<i>Types.²</i>
Patna, Agra	Affiliating.
Calcutta, Madras, Bombay, Punjab, Nagpur, Andhra, Osmania.	Affiliating and Teaching (mainly post-graduate).
Allahabad, Delhi, Benares Hindu, Mysore.	Teaching.
Dacca, Lucknow, Aligarh Muslim, Annamalai, Trivandrum.	Unitary.

¹ Excluding Rangoon University in Burma, which is now separated from India.

² 'An "Affiliating" University is a university which recognises external colleges offering instruction in its courses of studies; a "Teaching" University is one in which some or all of the teaching is controlled and conducted by teachers appointed by the University; a "Unitary" University is one, usually localised in a single centre, in which the whole of the teaching is conducted by teachers appointed by and under the control of the University'—*Progress of Education in India, Tenth Quinquennial Review*, 1927-32, vol i, p 61.

The unitary type of university, by virtue of the appeal it makes to local civic pride, is often the recipient of large benefactions. It is able to offer greater uniformity in teaching, a greater degree of co-ordination between teaching and examining, better conditions of residence and corporate life, and the improved organization that is the outcome of a unity of purpose. In spite of these advantages, it is doubtful whether it will prove to be the ideal type for India. Theoretically one would have thought that, free from the overlapping and duplication invariably present in the affiliating system, the unitary or semi-unitary Indian universities would have proved economical. But in practice the opposite has been the case. It is necessary to bear this in mind in view of the limited financial resources available for university education in India. Another drawback of the unitary type is that there is a danger of the university becoming the refuge of sectional and parochial interests, and losing that broad outlook which is essential to all universities, especially to Indian universities in the present days of growing nationhood. Aligarh Muslim University and Benares Hindu University have a State-aided communal bias—it is seen in their names—and it is widely suspected—whether rightly or wrongly—that one of the motives of the Government in creating the new university of Dacca was to drive a wedge between the Hindu and Mohammedan communities of Bengal. The danger that every university faces of power passing into the hands of a small set of interested persons is the greatest in a unitary body which is located in a small centre removed from the wider movements of the country's life. The process of splitting up the large universities into numbers of small universities cannot be carried on beyond a certain point without bringing about wasteful duplication, unhealthy competition, and a serious deterioration of standards. Too many universities within the same

province will create worse educational problems than too many colleges under the same university, and will retard the growth of Indian nationhood by strengthening the sectional, separatist, and reactionary forces of the country.

One advantage of the affiliating system is that the students are looked after through the affiliated colleges in smaller units than is, as a rule, possible in a unitary body. An overburdened unitary university will be a greater evil than are the larger colleges of India. The freedom afforded by the affiliating system had enabled some of the Indian colleges to build up fine traditions and to acquire a great hold on the public mind. In the interests of Indian education it was necessary that these colleges—some of them the best in India—and their traditions should have remained unimpaired. But the creation of unitary universities has sometimes had just the opposite effect. To quote from a government report: 'Unitary universities have rarely risen through the annihilation of colleges, but have either originated as such or have developed from a single college, which formed part of another university and remained so until it had gathered sufficient strength and support to stand alone. In such cases, collegiate traditions, far from having been stifled, have ripened. Such should be the outcome at Benares, Aligarh and Chidambaram [Annamalai]. It is open to question, however, whether in other places the benefits gained by improved organization have not been outweighed by the loss of college traditions which these unitary universities have eclipsed. The recent Commission on Christian Higher Education in India have represented a further difficulty that the natural development of colleges is often embarrassed by the ever-present fear that, with the constitution of a unitary university, their whole character and traditions will be altered.'¹

¹ *Progress of Education in India*, (v. supr.), vol. i, p. 76. See also Lindsay Commission's Report, pp. 73-4.

The same unfortunate loss of college traditions has sometimes attended attempts to build up a teaching university by withdrawing higher teaching from the colleges and placing it under the direct control of the University. There is a school of thought in India which holds that, in view of the inadequate resources of the majority of the Indian colleges, not only post-graduate teaching, but that for the honours course for the Bachelor's degree as well, should be taken over by the University. This will undoubtedly result in efficient teaching, and students of exceptional ability who read for honours will undoubtedly benefit by being separated from students of average ability who read for the pass course. On the other hand, it will create an unhealthy spirit of rivalry between the university and its colleges and an unhappy distinction between 'honours' teaching and 'pass' teaching, and between 'university' students and 'college' students. The ablest teachers will then drift away to the university, and the colleges—the good as well as the bad ones—will be reduced to insignificance, if not threatened with extinction. These criticisms, whatever their value with regard to the 'honours' course, do not apply to post-graduate teaching, which should, wherever possible, be centralized and placed under university control. Before the universities reorganization that followed the Calcutta University Commission, only about a dozen colleges in the whole of India taught for the Master's degree, and the majority of them were not competent to teach more than two or three subjects. Thus the question of the loss of college traditions hardly arises when post-graduate work is handed over to the University. What is more, none of these colleges had any tradition for research, or anything like adequate equipment for it, especially in scientific subjects. Organized research is a new thing in Indian universities, and only began in 1917, when the Calcutta University assumed complete control over its post-

graduate work. The happy result of that control is seen in the post-graduate teaching organization and the atmosphere for research, the best in India, that the Calcutta University has built up.

In view of the many difficulties of the situation, perhaps the best type of university for India would be the federal type, as it exists in Wales, and as it was defined by the Hilton-Young Committee which met in 1925 to consider the future development of the University of London.¹ London was the model on which the earliest Indian universities were formed; and its transformation from an affiliating to a teaching university created the demand for a similar transformation of the Indian universities. So it is more than likely that London will again influence Indian university organization. Under the federal system the university and its constituent colleges will co-operate in a spirit of partnership. The university will admit the colleges as such into its government, and the colleges will surrender an effective measure of autonomy, in such matters as finance and the appointment of teachers, in order to contribute to the life of the university as a whole. The teaching and other resources of the colleges, at least of those colleges which are in the same town, will thus be pooled together and properly co-ordinated under the control and supervision of the university. Some of the Indian universities are already developing in the direction of the federal type. Increasing efforts are being made at Delhi, Patna, and Bombay to build up intimate association between the University and its constituent colleges.

Before 1919 the full university course extended over six years, the first two for the intermediate examination, the

¹ See *Report of the Departmental Committee on the University of London*, H.M. Stationery Office, 1926.

third and fourth years for the Bachelor's degree, and the last two for the Master's degree. In the opinion of the Calcutta University Commission, as in that of the Education Commission of 1882-3, the intermediate classes should have really formed part of school work, and their inclusion within the university course was one of the main reasons for the overburdening and the lowering of standards in the Indian universities. In this respect the Calcutta University Commission proposed that the intermediate classes be removed from the sphere of university work, and that a new type of institution, to be called the intermediate college, be created by combining the two intermediate classes of the university with the two top classes of the secondary school. It was hoped that this would serve the double purpose of strengthening the school foundations by the clear demarcation of university and school work, and of giving much-needed relief from overburdening to the universities. A necessary corollary of the proposal would be the extension of the Bachelor's course to three years. Intermediate colleges have since been formed in Bihar, in the United Provinces, in the Punjab, and at Dacca.

The intermediate colleges have been criticized as being neither colleges nor schools and have, on the whole, met with indifferent success. They have fared best in the United Provinces, though even there the intermediate college at Aligarh had to be abolished within a few years of its establishment. The intermediate colleges of the Punjab have had to be affiliated to the Punjab University, though independence of the university is the basic principle of the intermediate system. As a matter of fact, it is not at all certain whether the benefits the intermediate colleges confer by reducing the number of students in the universities are not more than neutralized by the additional expense

they entail, and by the additional complexities they introduce within an administrative machinery which is already heavy and complex. The interest of Indian education demands that it should be handled, so far as possible, as a whole, and not be split up into too many sections under too many authorities. The more it is so split up the greater will be the danger of its being exploited by reactionary and separatist forces—such as communalism—that exist in India and that have too often been encouraged by the Government. Moreover, there can be no doubt that the intermediate colleges, by themselves, will no more than touch the fringe of the educational problem they are intended to solve. So long as school education remains as bad as it is to-day, it is impossible to see how any substantial improvement in university education can be effected by merely chopping off the head of the school course and the legs of the university course. The Indian education system is like a tree: it will bear good fruit at the top only if it is well nourished at the roots.

The total number of students enrolled in all the eighteen universities in 1932 was 105,238, of which 101,549 were in the sixteen British Indian universities, and of which 2,968 were women. The enrolment was 856 in Osmania and 2,833 in Mysore. As the total population of India was over 352·8 millions, and that of British India was over 271·7 millions, it follows that 1 out of every 3,528 men and women in the whole of India, and only 1 out of every 2,717 men and women in British India, was receiving university education in 1932. The following table gives the numbers in the British Indian universities on a provincial basis:

*Table VIII.—Numbers in British Indian Universities,
Arranged by Provinces, 1932.*

<i>Province.</i>	<i>Population in millions.</i>	<i>Univer- sities.</i>	<i>Enrolment.</i>	<i>Graduates in 1932.</i>
Bengal (in- cluding Assam)	58·7	Calcutta	26,560	2,044
		Dacca	1,063	172
			27,623	
United Provinces	48·4	Allahabad	1,746	465
		Benares	2,993	195
		Aligarh	1,150	132
		Lucknow	1,813	206
		Agra	2,985	399
			10,687	
Madras	46·7	Madras	16,610	1,527
		Andhra	3,805	517
		Annamalai	561	82
			20,976	
Bihar and Orissa	37·6	Patna	4,739	252
Punjab	23·5	Punjab	16,971	1,023
Bombay	21·9	Bombay	14,499	1,016
Central Provinces	15·5	Nagpur	2,354	252
Burma	14·6	Rangoon	1,674	97
Delhi	0·6	Delhi	2,026	161
TOTAL	267·5	—	101,549	8,540

The highest enrolment has always been in Calcutta. The total number of university departments was 114, of constituent colleges 40, and of affiliated colleges 249.

The total expenditure on higher education in British India in 1932 was made up as follows:

Arts colleges . . .	Rs 16,661,512
Professional colleges	Rs 8,138,162
Universities . . .	Rs 13,207,788

TOTAL . Rs 38,007,462 = £2·85 million.

As there were 101,000 scholars, the expenditure per scholar was £28. The total government expenditure on higher education in the same year was as follows:

(a) From Provincial Revenue—	
Degree Colleges	Rs 50 lakhs
Universities .	Rs 61 „
(b) Recurring grant of 3 lakhs each to Aligarh and Benares from Central Revenue . . .	Rs 6 „

Rs 117 lakhs = £0·88 million.

Government expenditure on higher education was less than one-third of the total expenditure on higher education, and in 1932 formed about 8·98 per cent. of the total Government expenditure on education. It works out at the rate of about three farthings per head of the British Indian population, and about £8. 13s. per scholar. In Great Britain in 1936-7 the total number of students (including part-time students) in the universities was 62,492, and the total expenditure on university education was £6·4 million, of which £1·7 million came from government funds. Thus,

the total cost per scholar in Great Britain was £103 as against £28 in British India; and the total cost per scholar to the Government was £28 in Great Britain as against £8. 13s. in British India.¹

Government aid to the universities is given in the form of recurring block grants. Government control over the university is exercised through the authority of the Chancellor, who is usually the Governor of the province in which the university is situated, and through the reservation of seats on the governing body of the university for members nominated by the Government. The percentage of these reserved seats varies in the different universities.

An analysis of the faculties shows that in 1934-5 all the universities had provision for the ordinary arts and science subjects, and eight had provision for oriental learning. But there was considerable variation with regard to professional subjects. Thus there was provision for Law in all the universities except 3; for Education in all except 4; and for Medicine in all except 5. Commerce was taught in 7 universities, Engineering in 9, Agriculture in 6, Technology in 2, and Forestry in 1. In 1934-5 there were altogether 70 professional colleges in British India with a total of 19,893 students. Private benefaction has provided some of the best scientific and technical institutions, such as the Indian Institute of Science at Bangalore. The demand for scientific and technical education is very great, and is ever growing, but its supply has been extremely inadequate, because of its costliness. Very few of the colleges and universities have had the necessary financial resources to undertake it on a scale at all commensurate with the needs of India and with the demand for it that exists among Indians. This is the most unhappy feature of Indian educa-

¹ The difference in standard of living between the two countries should, however, be taken into account.

tion. What India needs above all is a large army of doctors, engineers, and scientific and technical experts to lift her out of her present primitive condition and to develop her vast material resources. It is not true, as is sometimes suggested, that Indians have no bent for scientific and technical education. Large numbers of Indians go to foreign countries for such education, and there is great pressure on the scientific and technical institutions that India possesses.

The recommendation of the Calcutta University Commission regarding the extension of the Bachelor's degree course to three years has not been generally followed, and the majority of the universities continue the old two years' course. The pass course for the same degree needs to be properly planned, so as to make it attractive to students of ability. At present it is too shallow and carries but little credit, with the result that there is more pressure on the honours course than there should be. While the honours course, more thorough and more intensive, should aim at the training of specialists, the pass course should provide that grounding in a wide range of subjects which is of greater value to the majority of people than a highly specialized honours course in a single subject. The pass courses of the Scottish universities should serve as a good model to the Indian universities. The examination for the Master's degree is entirely on a prescribed course in the majority of Indian universities, but in some the student is allowed the option of offering a dissertation in lieu of part or whole of the prescribed course. The university examinations are on written papers, generally unsupplemented by oral tests, and the successful candidates are classified in the first, second or third division. Many of the universities award the Doctor's degree for advanced research by graduates of not less than three years' standing, but there is no provision

for systematic supervision on the part of the university while such research is being conducted.

The cost of university education to the student varies from province to province and from town to town. But Rs 50 per month, or £45 per year, would be a fair estimate for the whole of India and would include not only fees, but also living and club expenses. Considering Indian conditions, it is a pretty high cost. It is more difficult to give a definite idea of the salaries of university teachers, as they are different in different universities, and because of the variation in the salary scales of the different provincial governments. As for the salaries of teachers in the private colleges, it is a grievous blot on the Indian educational system that there is no such thing as a fixed scale, with the result that the salaries vary not merely in different provinces, nor even in different towns of the same province, but in different colleges of the same town. Thus the teacher is completely at the mercy of his employer, the more so on account of the unemployment that exists among the educated community. Generally speaking, the whole-time teachers of the universities fall into three grades: the Professorship with a salary varying between Rs 600 and Rs 1,200 per month; the Readership with a salary varying between Rs 400 and Rs 800 per month; and the Lectureship with a salary varying between Rs 250 and Rs 500 per month.

Greater co-ordination than exists at present is needed among the universities within the same province and among all the universities of India. An Inter-University Board has been in existence for some time, and its objects are, among other things, to facilitate the exchange of teachers and the co-ordination of university work, to act as an information and appointments bureau for the universities, and to assist them in obtaining recognition in countries

outside India. All the Indian universities are members of the Board, but it has not yet had any appreciable influence on university policy.

Overburdening, the preponderance of purely literary types of education, and the deterioration of standards resulting from bad conditions prevailing in the schools are the main problems of the Indian universities. The school system should be radically reformed by the introduction of free and compulsory primary education over the whole of India, and by the provision of healthy school surroundings and efficient teaching and inspection. The present system by which school education, in its early stages, is almost entirely directed towards the matriculation examination of the university should be modified by the addition of practical and vocational courses. This would benefit pupils who take up a vocation on finishing school and would diminish the present tendency on the part of many pupils to drift on to the university and unduly to prolong their literary studies.

Although the Indian universities are 'overburdened', it should not be understood, from my use of the term, that too many Indians receive higher education. In 1932 there were sixteen universities in British India, and the proportion of the university population to the total population was 1 to 2,717. In the same year there was the same number of universities in Great Britain, but the proportion of the university population to the total population was 1 to 868. There is in my opinion no truth in the assertion so often made that there are too many universities and too many graduates in India. In shaping a university policy for India, one should take a large view and consider India's past tradition and the great love and aptitude for learning that Indians have. The response they gave to western learning

was immediate and whole-hearted, and the results they have achieved are highly creditable, in spite of their having had to acquire western learning through the medium of a foreign language. India is now in the process of an intellectual renaissance which will demand ever greater facilities for its fulfilment.

In 1934-5 the ratio of universities to university population was 1 to 6,000 in India. The proportion in Great Britain in 1936-7 was 1 to 4,000. The comparison is intended to show that the average number of students in the Indian universities is not so high as to constitute a serious problem. It might argue the desirability of creating new universities in India, but does not insist on its absolute necessity, especially as there are other and more urgent reforms to be carried out. It is particularly necessary to bear this in mind, because of the tendency that prevails in India to side-track the deeper and more serious aspects of the problem of overburdening by concentrating attention on its superficial and sectional aspects. The problem is regarded purely as one of reducing the excessive numbers of students in particular universities by creating new universities and by removing the intermediate classes from the sphere of university work. The root cause of overburdening is not inquired into, nor does one take into consideration the rate of increase in the total university population of India, which is shown by the following table:

<i>Year.</i>	<i>University Population.</i>			
1917	.	.	.	61,000
1922	.	.	.	66,000
1927	.	.	.	93,000
1932	.	.	.	105,000
1935	.	.	.	111,000

The university population of India had nearly doubled itself between 1917 and 1935. This is where one touches the core

of the problem of overburdening: the fact is that increasing numbers of youth are coming to the university because of increasing unemployment among youth.

The saddest feature of Indian university education is not that there are too many students, whether in the universities separately or as a whole, but that there are too many ill-suited and unenthusiastic students who have been driven to seek university education because there is no other career open to them.¹ The Indian universities will continue to be burdened by such students until the economic condition of India is bettered. This may seem an obvious point, but it has to be made, if for no other reason than that so many people cannot see it or deliberately shut their eyes to it. To consider further the tragic waste of Indian youth: the proportion of the university population to the total population is as 1 to 2,717 in British India as against 1 to 868 in Great Britain. But as only about 1 in 10 of the Indian population can read and write, it follows that the proportion of educated Indians who seek university education is more than 1 to 271, or more than three times as great as in Great Britain. This will give an idea of the unemployment among the educated youth of India, but there is something worse. While a very large proportion of the students in British universities pursue professional and technical courses which qualify them for employment after leaving the university, more than 80 per cent. of the Indian students pursue purely literary studies, and are either unemployed or obtain unsuitable employment after leaving the university. The costliness of professional—especially scientific and technical—education makes it almost entirely dependent on government patronage in India; and government apathy in this

¹ This problem is, of course, an acute one in many other countries besides India. For a good analysis of it see W. M. Kotschnig, *Unemployment in the Learned Professions*, esp. ch. ii.

respect is easily understood. It is no use training Indian scientists and technicians unless there are Indian industries to utilize them; and the Government has not generally been anxious to favour the industrial development of India, lest it might conflict with British economic interests.

There is never a government report on the Indian universities which does not make the complaint that their work is vitiated by reason of the fact that the majority of the students are ill-qualified to benefit by university education. This is brought forward as an argument in favour of reducing expenditure on university education. It should really be taken as an indication of the terrible poverty and unemployment that exists in a country which is potentially among the richest in the world. The problems of Indian university education are primarily economic and political, and only secondarily educational.

PART IV: THE FAR EAST

Universities and National Reconstruction in China

P. C. CHANG¹

Destruction and Determination

TWO things stand out very strikingly in regard to the Chinese universities in this period of national crisis, namely destruction and determination. I shall not dwell on the deliberate vandalism exercised by the Japanese invaders on the educational and cultural institutions in China since July 1937. In passing, however, I may mention that I happened to be present on 29th and 30th July 1937, when my own university, Nankai University in Tientsin, was bombarded, bombed, and burned. The students, the staff, and their families were moved out of the university only two or three hours before the bombardment began. It was not altogether unexpected in a certain sense, because we knew all along that the invaders considered our institution

¹ Professor Chang wished it to be made clear at the outset that he had been obliged to write this chapter during the course of a brief stay in London early in 1939, at a time when his mind was inevitably full of more pressing concerns. He had, therefore, neither the necessary material at hand for reference, nor the time which he would have liked for quiet ruminating over the subject matter. The editor must take full responsibility for having pressed Professor Chang to make his contribution—originally asked for under happier circumstances just before the outbreak of the war—even under such difficult conditions. He was strengthened in his determination by the realization that highly interesting and important developments are taking place at the present time in Chinese higher education, developments to which the war has in no way put an end, and which it has in some respects accelerated, as Professor Chang shows in his article.—Ed.

as being very anti-Japanese, chiefly, I should suppose, because of the effect of our humble educational activities on the temper and direction of new national efforts in North China and in Manchuria. The completeness and ruthlessness of the destruction were, however, a surprise even to those who were anticipating the intentions of the invaders.

According to one trustworthy estimate,¹ out of the 114 institutions of higher learning in China, including some 47 universities, 35 colleges, and 31 technical schools, 54 have been destroyed or very seriously damaged by the Japanese. Of the 82 institutions situated in the invaded areas in the coastal and central provinces, only four private universities and two private colleges were operating as usual in the summer of 1938.

The amount of damage is not easy to calculate, especially when one bears in mind the loss of invaluable collections in libraries and research institutions. But a recent estimate puts the actual war damage to the universities and colleges at over thirty million Chinese dollars, and it is beyond any doubt that universities and other cultural institutions have received the special attention of the Japanese as objects for destruction.

Equally striking is the determination on the part of the Chinese Government and people to maintain university education, and to re-establish the universities in the less accessible western provinces. Before the war it was a common criticism of Chinese higher education that it was badly distributed with reference to the needs of the country as a whole. For instance, the mission of educational experts sent by the League of Nations at the request of the Chinese

¹ 'Recent Conditions of Chinese Universities, Colleges, and Libraries, a preliminary survey made by the Library Association of China', *China Institute Bulletin*, November 1938.

Government to report on the re-organization of education in China reported¹ that in 1930-1 no less than eleven of the fifteen National Universities were to be found in three cities. Peiping and Shanghai alone contained 20,463 out of the 33,847 students in China, a proportion of about 60 per cent.; if the numbers in Tientsin, Hankow, Nanking, and Canton be added, the total in these six cities amounted to 26,384, that is to say, over 75 per cent. of the total. All six cities have fallen into the hands of the enemy, and yet to-day 79 of the 114 institutions of higher learning are operating, the majority of them having migrated to new homes in the western provinces. Where adequate preparations could be made before the move, they have preserved their identity; but in many other cases several institutions have joined forces; thus, for instance, has been established the National South-west Associated University at Kunming, in the heart of Yunnan, China's south-westernmost province, composed of the National Peking University, the National Tsing Hua University, and Nankai University. Similarly, the North-west Associated University, in Shensi Province, groups the National University of Peiping, the National Normal University of Peiping, and National Peiyang Engineering College.

Furthermore, in spite of the great financial strain which the war has put on governmental finances, the staff of the different universities are surprisingly well taken care of by the Government. Very few have been completely thrown out of work; wherever possible they have been kept on at their original institutions and enabled to do their regular teaching and research work in places of at least comparative safety. They are even receiving as much as

¹ *The Reorganisation of Education in China*, by the League of Nations Mission of Educational Experts: International Institute of Intellectual Co-operation, Paris, 1932, p. 147.

50 to 70 per cent. of their original rates of pay—a striking indication of the weight attached by the Government to the maintenance of cultural efforts in this time of national struggle.

Why the destruction and why the determination? This question can be answered very simply: Chinese universities form the fountain-head of the new national sentiments and the training-ground for leaders in national reconstruction. The fact that they have received the special attention of the invaders is really a compliment to their effectiveness. And the fact that the Chinese Government and people are determined to maintain the universities at great cost shows their recognition of the special function which the universities will have, both during the period of war of resistance and in the period of national constructive efforts following the war of liberation.

Perspective

It is known even to people with very little knowledge of Chinese history that China has had a long and continuous culture stretching back, at a conservative estimate, some four or five thousand years. Yet the universities in China as they are constituted to-day have been established only within the last half-century. This does not, of course, mean that the Chinese have never attached importance to higher learning. Nothing could be farther from the truth. Modern educational institutions, however, have come into being only in comparatively recent years and as a result of the need felt for adaptation to the modern world. I cannot here attempt to describe the place which higher learning holds in Chinese society to-day. Nor is it necessary to discuss in detail how the impact of the modern western world has brought about a consciousness of the need for changes in Chinese national life. It is enough to state that the organiza-

tion of universities on modern western lines began only when there was a conscious adaptation to the modern world, at the end of the nineteenth century.

The encouragement of higher learning was carried on in the pre-modern periods of China's history under quite different systems of education. The first schools to be opened on modern western lines were training schools for the navy, the army, and technological pursuits, in the last quarter of the nineteenth century. By 1904 a new educational system was inaugurated, and after the establishment of the Republic in 1911 fresh efforts were made to adjust the educational system to the making of a new national life in the Republic.

Of the achievements of the new educational system in China during the last generation we can get a glimpse by looking at the following comparison of the figures for 1912—the first year after the foundation of the Republic—and those for 1933:¹

Table IX.—Expansion of Chinese Universities, 1912-33.

<i>Year.</i>	<i>Institutions of Higher Learning.</i>	<i>Students.</i>	<i>Expenditure.</i>
1912	4	481	\$755,730
1933	109	46,758	\$34,643,000

Some of the intervening stages in this meteoric rise can be gathered from the following figures:² before the establish-

¹ Dr. Wang Shih-Chieh, Chinese Minister of Education, quoted in the *China Year Book*, 1938, p. 316.

² Based on *L'Organisation de l'enseignement supérieur*, issued by the International Institute of Intellectual Co-operation, Paris, 1938, vol. ii, pp. 60 ff.

ment of the Republic there were 3 governmental universities; by 1916 there were 7; in 1925 there were 24 national, 10 provincial, and 13 registered private universities, making 47 in all; by 1931 the number had reached 73, and by 1934 it was 80, while in addition there had been a strong growth in the number of technical colleges during the years following 1929, bringing the total number of institutions of higher learning up to 109 by 1933, and 114 by 1937. There was a corresponding growth in the teaching staff, which in 1912 numbered 229, in 1916 420, and in 1930 5,894.¹

The cultural transformation that has been going on in China during the last half-century is an extremely complex and challenging phenomenon. Figures alone cannot possibly tell the story in an intelligent manner. It is necessary, I think, to dwell a little on the perspective of the cultural changes which we are witnessing. At a time when new forces and new cultural forms have been introduced into the political, economic, and social life of the country, a great deal of confusion is bound to occur. When a culture undertakes to transform itself, three phases are usually discernible in the process. First, there is a phase of hesitation, self-sufficiency, and stubborn conservatism; a maintenance of things as they have been with an intensity altogether unjustified and made untenable by the pressing needs for change. Then comes a second phase, characterized by hurried borrowing, taking over from some other culture new ways and means of doing things, new ideas, new ways of looking at things, without the necessary critical and selective choice. The third phase is that of conscious adaptation and creative adjustment.

This general formula can be applied very closely to the case of China: for nearly three-quarters of the nineteenth

¹ Based on *The Reorganisation of Education in China* (v. supr., p. 245), pp. 152-3.

century the Chinese refused to change; hurried borrowing began at the turn of the century and continued until about a dozen years ago; and critical readjustment has come into people's thinking during the last dozen years.

Now with the realization of this need for creative adjustment and critical selection, universities naturally come to be considered as of vital importance; they have a crucial function to perform in the period of cultural transformation and national reconstruction. Before proceeding to touch upon some of the problems which this increased importance involves for the universities, I wish to make one or two remarks on the nature of cultural borrowing, which is too often taken for granted.

The world has witnessed inter-cultural contacts at every stage of history. Despite the contentions of certain national or racial groups, unbiassed students are agreed that no people in the world has ever been 100 per cent. original. All peoples have taken part, whether as contributors or as borrowers, in the exchange of certain cultural forms. The phenomena of inter-cultural contacts in the modern world, however, differ from similar phenomena in earlier history, chiefly in that the process has become much more forced and much more hurried. Modern European culture has spread all over the world within a period of two or three hundred years. The impact of modern western culture upon other cultures, non-modern or pre-industrial, has shown many types of adjustment and reaction. It is still generally asserted that one should keep what is good in one's own culture and take over what is good from that of others. This advice sounds very liberal, and I think that many of the liberally disposed people in the world would agree to that general attitude. Nevertheless, it leaves two very important questions unanswered, namely, 'What is the good?' and 'What is the nature of keeping and taking?' in cultural

activities. These questions are by no means abstract, nor are they easy to answer. They lead us on an adventurous search for a new technique during a period of cultural changes.

Man is naturally guided in most of his actions by habit and tradition. Psychologists have been telling us for over a generation that by far the greater part of our actions are habitual. We do not like to change unless situations force us to, and when new needs are felt we are stimulated to look around and search for new means in meeting them. And thus the motive to study, to look for new cultural forms from other cultures, is stimulated by the wants felt. Of course, we should not stop there: we should extend our examination into a critical analysis of the cultural forms, and not regard them as something indivisible and, as it were, dropped complete from heaven.

The above abstractions may be made a little more intelligible if we look at the function of the Chinese universities in the present period of national reconstruction. The function is naturally threefold according to the perspective sketched above: first, to know our own needs at this present period in a concrete and realistic manner; secondly, to survey and study other cultures, especially modern western civilization, for stimulation and suggestions in the meeting of our needs; and, lastly, the creative effort involved in working out new ways and means to the solution of our problems. These three lines of approach give to the Chinese universities a unique place in solving the problems of national reconstruction, both to-day and in the future. Keeping these in mind we shall now proceed to discuss some of the problems which face university education in China.

Problems

It will be well to preface this section by quoting a paragraph from the report of the League of Nations Mission

of Educational Experts to China in 1931, to which we have already referred: ¹

'In the last twenty years University education in China has advanced with extraordinary rapidity. The most superficial observer must be struck by the influence which it has exercised upon the life and thought of important strata of the population. Distinguished scholars have received part, or all, of their higher education in Chinese Universities, and, in their turn, have taught in them; the personnel of the Civil Service, central and local, and of teachers in secondary schools—both key professions—is largely recruited from them. Their contribution to the advancement of knowledge has, in certain fields of study, been of genuine significance. It is not an exaggeration to say that modern China is, to a large and increasing extent, the creation of her universities.'

This is an objective and fair statement. Universities in China have already played their part in the transformation of national life during the last generation, and a greater part is now being thrust upon them in the meeting of the national emergency, as well as in the building of a new nation tomorrow. Some of the problems referred to in the above-mentioned report, such as that of the geographical maldistribution of the universities and the lack of adequate co-operation of universities in one centre, are now being solved as a result of the war conditions. The re-establishment of the universities in the western part of the country, referred to above, must necessarily strengthen the areas that used to have very few institutions of higher learning. For instance, the report recently published by the Institute of Intellectual Co-operation on the organization of higher education ² and written just before the outbreak of the war, calculated that in all the north-western provinces there were only two universities, and that in the vast area west of Nanking, embracing part of Szechwan, and all of Honan,

¹ Op. cit., p. 145.

² Op. cit., vol. ii, p. 63.

Hupei, and Hunan, there were only fifteen. To-day, towns of the interior such as Chungking, Chengtu, Hanchung, Kweiyang, and Kunming are among the busiest and most populous university centres of the country. It may well be that this great transfer, owing its origin to the accidents of war, may have permanent effects on the distribution of higher education in China. Furthermore, the migration of the staff and students from the coastal provinces inland has brought about a quickened pace of modernization in an area hitherto more or less isolated from modern influence. Again, travelling over half of the country by the most varied means of communication, and sometimes on foot for two or three thousand miles, has given to both students and teachers a new sense of reality and urgency, an awareness of the problems that China has to solve. This cannot be without its influence on their studies and their whole approach to intellectual work. These are but a few of the benefits which may be derived from the terribly wasteful process of the war.

Another problem which present conditions are helping to solve is that of the attitude of the students. It is well known that in the old days the so-called *literati* provided the administrators of the Empire. All families used to aspire to have their boys educated, pass the Civil Service examinations, and then become officials of the Empire. That kind of outlook has affected the students in the modern Chinese universities to the extent of inducing more of them to study law and politics, to take only one instance. However, the present national crisis, where China is involved in a war of defence and resistance, shows up clearly the country's deficiency in technological workers. During the past year, the Ministry of Education has concentrated specially on the promotion of vocational and technical studies in the universities. A few months ago I was at Kunming, the seat of the National South-west Associated University. There I found

that the school of engineering was overflowing with students, and I was told that last year's graduates in engineering and in chemistry had been immediately engaged on the different national projects. Twenty new courses of study have been introduced at the various universities, including tele-communication, applied chemistry, automotive engineering, mining and metallurgic studies, agricultural economics, animal husbandry, health administration, and specialized studies such as paper-manufacturing, tanning, sericulture, and the scientific treatment of agricultural products. These are clear indications that the Chinese students are no longer 'official minded'. The modernization of China requires efforts in all lines, and especially scientific technology, and it seems as though the war had accelerated the response to this need. It is certain that after this trial and baptism in blood the university students of China will become much more realistically minded and be able to face the problems of making China into a modern nation in a much more practical manner.

There is another problem which I think is important, but somewhat 'academic' under the circumstances of the moment, namely, whether instruction should be given in the form of lectures or in seminar discussion by means of tutorial instruction. The reason why this problem may appear to be somewhat 'academic' is that the places where instruction is going on at present are so limited that both the teachers and students are only too glad to be able to meet in some place for the carrying on of their work, without worrying much about the ideal form of gathering. However, when the war is over attention will be given to this problem, and it seems fairly clear that with the complete change of mental attitude, referred to above, instruction will be carried on in a form closer to the needs of the period of national reconstruction than they have been before.

Another problem which faced the pre-war universities was that of the large amount of foreign materials (text-books, equipment, illustrative examples, etc.) used in instruction. To a certain extent at this time when we need to study modern western learning, foreign materials are necessary, but it is important that they should be studied and used in a critical manner. The more pressing the needs which the students feel, the more critical they will become, and in this way also it may be said that war-time experience is being salutary.

Another need of the Chinese student was for more research facilities. At present, research is being carried on by those prepared to undertake it under somewhat stringent circumstances, but I think with more productive results than before. Many of the research scholars have saved whatever they could out of the accumulated records and are now working quietly in the western part of the country.

On the whole, to refer back to our perspective, it seems clear that the sad experiences in this war of resistance have really brought about changes in Chinese universities which are far from being merely destructive. They are working under very trying and difficult circumstances, without books and equipment in many instances, but their efforts have become much more real in content as well as in function. First, they have come, as never before, to realize the needs of China in this period. Secondly, they have been stimulated to look to the modern western world for ways and means to solve their problems, and to exercise selective powers on what they saw. Finally, they are forced to devise creatively solutions, which must stand the test of practical application in present conditions. In a word, the national reconstruction has been hastened by the war, and the Chinese universities are playing their part in this great historic movement.

The University in Japan

SEIYA MUNAKATA

The University before 1872

THE institution for higher learning is called '*Daigaku*'¹ in Japanese. This appellation already appeared in a decree of A.D. 701 (*Taihō* Decree), and the institution bearing this name was an organ for training Government officials modelled after the system of the T'ang Dynasty in China.

Modern Japan began in the Meiji era (1868-1912). In the Tokugawa period which immediately preceded the Meiji era, the Shogunate had its institution for higher learning which was ideologically under the influence of Confucianism and which had as its objective the training of *samurai* for a political career.

It was natural that the higher learning was also shaken to its foundation by the phenomenal changes of the Meiji restoration. Revival of popular zeal for the Japanese classics characterized the opening years of the Meiji era. When we recall the fact that the Japanese classics played a very important role in restoring the Imperial rule in 1868, it is no wonder that the Japanese classics assumed importance, superseding the Chinese classics after the Meiji restoration. To cite an example, the object of an institution for higher learning in Kyoto, as laid down in its statutes, was 'to clarify our National Polity,² to define right relationships,³

¹ *Daigaku* literally means 'Great Learning'.

² *Koku-Tai*.

³ *Mei-Bun*.

and to utilize the Chinese classics and the western learning as two wings for the advancement of the Imperial Way'.¹

In 1869, three schools under the direct control of the Tokugawa Shogunate were combined into one, and this institution, called 'Daigakko' for the first time, became the present Tokyo Imperial University. The basic principle of this institution lay in clarifying the Imperial Way and the National Polity of Japan. According to the 'University Regulations'² issued the following year, the university had five courses, namely education, law, science, medicine, and literature.

Establishment of a Western-style Educational System

On the other hand, there was a growing tendency, among the Japanese scholars who studied western learning, to endeavour to enliven the spirit of the new age by adopting the western educational system for the University in Japan. The scholars who studied the Japanese classics as well as those studying the Chinese classics offered a determined opposition to this move, but the 'Educational Ruling',³ as adopted in 1872, brought beyond any doubt the whole educational system of Japan under western influence.

According to the Educational Ruling, the whole country was divided into eight 'university districts', each 'university district' into thirty-two 'middle-school districts', and each 'middle school district' into scores of 'grammar school districts'. Since each 'university district' was to have a university, there were to be eight universities in all, each having departments of science, literature, law, and medicine. Evidently, this plan was worked out after the model of the French educational system. It turned out, however, that it was too ambitious a plan for those days, and there was established only in Tokyo a Government

¹ *Kō-Dō*.

² *Daigaku Kisoku*.

³ *Gaku Sei*.

University, consisting of five professional schools, namely those of law, chemistry, engineering, arts, and mining. Later, in 1878, a university comprising departments of law, science, literature, and medicine was established, and it was by the issuance of a Government ordinance in 1881 that the university was consolidated into a complete and unified institution.

*Imperial University Ordinance*¹

With the promulgation in 1886 of the 'Imperial University Ordinance', the position of the Imperial University as a State institution was firmly established. Simultaneously, a department of engineering was added to the former four departments of law, science, literature, and medicine.² According to the Imperial University Ordinance, the Imperial University aims to 'teach such science and arts as are needed by the State and further to enable a thoroughgoing study in them'. It is made up of a post-graduate division and undergraduate colleges. It may be said that this Ordinance was enacted after the German model.

The Tokyo Imperial University had long been the only Government university in Japan, but the demand for more Imperial universities began to make itself felt with the spread of education and the expansion of national power. Under these circumstances, Kyoto Imperial University was established in 1897, Tōhoku Imperial University in 1909, and Kyushu Imperial University in 1911. To the list were added, although long afterwards, Hokkaido Imperial University (1918), Keijo Imperial University (1924), Taihoku Imperial University (1928), and Osaka Imperial University (1931).

¹ *Teikoku Daigaku Rei*

² A department of agriculture was added in 1890 and departments of economics and of commerce in 1919.

Since their inception, the Imperial universities, as centres of higher learning in Japan, have been sending out into the world a mighty body of intellectuals to steer the new Japan to prosperity. These graduates are in key positions in all fields of activities in this country and are making great contributions towards the development of Japan and the enhancement of her cultural level. Free absorption of western civilization enabled modern Japan to make a spectacular progress, and the universities were the very gate through which western civilization was ushered into this country.

*University Ordinance*¹

To return to the beginning of the Meiji era, with the increasing demand of the times for men conversant in law, politics, and economics, private colleges began to be established in rapid succession in the latter part of the eighteen-seventies to teach these subjects. In the nineteen-hundreds, some of them began to adopt the name of University, but in the eye of the law they were nothing more than colleges which were inferior to a university.

In 1918, however, the 'University Ordinance' was promulgated, as a result of which colleges were recognized by the law in addition to the hitherto recognized universities. At the same time, public and private universities were also recognized in addition to Government universities. Such private universities as had hitherto been universities only in name were reorganized to conform with the provisions of the University Ordinance and were, in consequence, granted recognition. It was after this time that the number of universities multiplied enormously.

The University Ordinance was epoch-making in that it put an end to the Government monopoly of universities

¹ *Daigaku Rei*.

on the one hand, and held up the State as their object of service on the other. An amendment was made in Article 1 of the University Ordinance in order to protect Japan against bad influences of alien thought which suddenly assaulted her after the World War. In the Article, which stipulates the objects of a university as the teaching and study of such science and arts as are needed by the State, a supplementary clause was added to read: 'paying heed to the building up of character and the fostering of loyalty to the State'. It is thus seen that the present educational system was firmly moulded by the University Ordinance.

Present Condition of the University

According to the University Ordinance, a *Daigaku* has, as a rule, several departments. In other words, it should be a comprehensive institution in the full sense of the western word 'university',¹ as distinct from a college. In certain cases, however, an institution with only one department may legally be called a 'university'. Examples of this are medical colleges, commercial colleges, and engineering colleges. Inasmuch as all the Imperial universities have several departments, Government universities with a single department, though of the same standing as the former, are generally referred to as the 'Government universities',² being differentiated from the 'Imperial Universities'.³

There are eight departments in all; law, medicine, engineering, literature, science, agriculture, economics, and commerce. In some instances, two or more of these departments are combined under one faculty and regarded as a single department—for example, law and literature, literature and

¹ Here the distinction is made in the original Japanese phraseology by the use of adjectives, thus. *Sūgō Daigaku* for a university with several departments and *Tanka Daigaku* for a university with only one department or college.

² *Kanritsu Daigaku*.

³ *Teikoku Daigaku*.

science, commerce and economics. In addition, there is a post-graduate course for those who wish to engage in further studies after their graduation.

As a rule, each department covers three years, excepting for a course in medicine which requires four years to finish. Those who have remained in any of the departments for a prescribed period and passed the examinations are entitled to a *gakushi* degree, a Japanese degree somewhat equivalent to a bachelor's degree. Generally speaking, those who have finished the preparatory course of a university or graduated from a *Kōtō Gakkō* (higher school) are qualified to take the entrance examination of a university. As a rule, students, after starting at a grammar school, have to receive education for fourteen years in all before they graduate either from the preparatory course of a university or from a *Kōtō Gakkō*. The majority of students, therefore, enter the university at the age of twenty-two in Japan.

Of institutions of higher education in Japan other than the universities, there are the *Kōtō Gakkō* or higher schools already mentioned, and 'technical colleges'.¹ Both in a higher school and in a technical college, courses of study from three to four years in length are given to the students who have graduated from the schools of secondary grade. They are approximately of the age of college students in America. The distinction between them is that a higher school prepares its students for the study they will pursue in a university, whereas a technical college gives a professional education which is somewhat lower than that given in a university.

As regards the education of women, there is as yet not a single women's university strictly conforming to the University Ordinance in Japan, although there are several kinds of technical colleges for women. As a rule, Govern-

¹ *Senmon Gakkō*.

ment and public universities do not admit women, though there are minor exceptions. Some of the private universities admit them, but their number is almost negligible.

The administration of universities may be briefly explained as follows: a university has a President,¹ and a department its Dean.² A limited number of professors representing their respective departments organize a Board of Councillors,³ and professors and assistant professors of each department form a Faculty Meeting.⁴ The former is a deliberative organ for the entire university, while the latter is for each department concerned. Nominations of the President and of the Deans and appointments of professors and assistant professors are within the competence of the Minister of Education, but as far as the custom goes, nomination in practice rests with the Board of Councillors and the Faculty Meeting. This 'autonomy of the university' has been in force since 1918 or thereabouts. True, the supervision of the personnel of the universities by the Department of Education has been somewhat strengthened during 1938, but no fundamental changes have been made in this matter.

The following tables will be of help in obtaining a bird's-eye view of the present state of university education in Japan. They are concerned only with Japan proper, excluding Korea and Formosa. They cover only universities proper, leaving out preparatory courses of universities, higher schools, and technical colleges.

¹ *Sō Chō.*

² *Hyōgi-in Kai.*

³ *Bu Chō.*

⁴ *Kyōju Kai.*

Table X.—*Japanese Universities: Number of Universities, Teachers, and Students.*¹

Type of University.	No. of Universities.	No of Teachers.	No. of Students.
'Imperial' . .	5	2,266	18,866
'Government' . .	12	771	4,851
Public . . .	2	103	852
Private . . .	25	2,115	23,456

Table XI.—*Japanese Universities: Number of Departments.*¹

Departments.	Imperial Universities.	Government Universities.	Public Universities.	Private Universities.
Law . .	2	—	—	6
Medicine . .	6	7	1	4
Engineering . .	6	1	—	1
Literature . .	2	—	—	12
Science . .	4	—	—	—
Agriculture . .	5	—	—	1
Economics . .	2	—	—	6
Law and Literature . .	2	—	—	4
Commerce . .	—	2	1	5
Literature and Science . .	—	2	—	—
Law and Economics . .	—	—	—	1
Politics and Economics . .	—	—	—	2
Commerce and Economics . .	—	—	—	2
Sciences and Engineering . .	—	—	—	1

¹ From the Annual Report of the Department of Education, 1934.

Present Problems and Future Outlook

In establishing the university in Japan, and, for that matter, the whole educational system of the country, the aim has been to adopt the strong points of the European and American systems. As already mentioned, the University, as the most important organ in absorbing western civilization, has greatly contributed towards the development of modern Japan.

Japan has made a spectacular progress in science, and particularly in the realm of natural science she has already made no small contribution to the learned circles of the world. But she has contributed little as yet to the world in the field of cultural science, the language difficulty accounting, at least partly, for this. There are not very many foreign students studying in Japan, but nowadays student exchanges are being conducted between Japan and a few countries in Europe and America. There are also students from various countries of the Orient studying in the universities of Japan.

Universities in this country were established by the Government to begin with, and private universities came to be authorized later. Unlike England and America, the private universities in Japan are, with a few exceptions, inferior to the Government universities. Some of the private universities uphold Shintoism, Buddhism, or Christianity, but the Government universities have no religious affiliation. It may be said that the universities in Japan have been free from the bitter struggle between science and religion which was experienced by the European universities. For the past twenty years or so, however, they have had occasional frictions with the Government authorities. A certain number of professors have come into collision with the Government on account of their radical political or economic thought and have been compelled to resign.

The dual function of the University, namely study and teaching, is an issue in Japan in the same way as in Europe and America. Phenomenal increase in the number of students, overburdening of professors with heavy duties in education, etc., are becoming more and more pronounced, and the duality is now a big problem demanding a solution. Institutes for special studies have already emerged from the University. It is expected that these institutes will grow more and more in the future, as special features of the University.

Japan is to-day confronted with a grave situation. Now that her political, economic, and cultural position in the East has suddenly acquired added importance, she must appraise afresh Japanese, oriental, and occidental cultures. For three-quarters of a century since the Meiji restoration, she has been under the necessity of absorbing the knowledge of the West as quickly and abundantly as possible. Japan cannot afford to remain only passive, as heretofore. She needs to re-examine herself and the world more fundamentally from a critical viewpoint.

Needless to say, this is an important period for the University too. Although the study of the culture indigenous to the soil of Japan has never been totally neglected, the work of the University since the Meiji restoration of 1868 has been to copy the West. At this time of live criticism a group of extremists are bent on rejecting everything western, and the University is being made the target of their attack. Of course such nearsighted criticism will not determine the ultimate course of events. For it is evident that international co-operation becomes all the more necessary for Japan with the increasing importance of her international status.

The University in Japan will not begrudge the world hearty international co-operation. More than that, the

University in Japan, let us hope, will make far more serious efforts than ever to fulfil its responsibility for world culture. Japan—and not least the University in Japan—is awakened to the fact that she is now in a position to contribute towards the world with her unique, creative culture.

University Education in the Netherlands East Indies

B. J. O. SCHRIEKE

HIGHER education of university level is a recent development in the Netherlands East Indies. Before the World War there was a movement to establish a university in the East Indies, but this movement was not taken seriously even by those people who held rather advanced opinions regarding the necessity and possibility of extending educational facilities in the East.

However, when during the War an acute need for university-educated personnel was felt and the regular contact with Holland was practically broken off, the idea of educating people who had finished their secondary education began to find support. Private persons, directors of the great corporations in Holland, met together and resolved to establish a Foundation which was to erect a school of engineering of Dutch university level. This school of engineering was opened at Bandoeng in 1920. The beginnings of university education in the Indies therefore were due to the initiative of European captains of industry.

The course of events during the World War had answered the question: 'Is it possible to create a university in the East Indies?' a question which had been discussed before as a merely academic subject. Before the War one of the chief objections had been that the indispensable condition for opening a university in the Indies was the

presence of an atmosphere in which the university could flourish. A university was not just another western school. It was held that such a spiritual and intellectual atmosphere was not available in a society which consisted of a large native agricultural population living on a low level of income, and a restricted number of Europeans of whom those who held the leading positions were likely to return to Holland. People were convinced that it was necessary for a university to be backed by a widely spread intellectual group. A university was regarded as the end of intellectual development, not as a stimulus to such a development. Moreover, people thought that those who intended to give a university education to their sons and daughters would not be willing to send their children to a colonial university but would prefer to send them to Holland; even those who strove to enlarge educational opportunities in the East Indies were of the opinion that native students wishing to take a university degree would profit more by going to Holland as long as the right university atmosphere was lacking in the Indies. Another objection was that if a university should be created it would not last very long because of lack of pupils, secondary education still being in an undeveloped state.

These considerations had to be revised after the War, when the educational system of the Dutch East Indies underwent a great change. Before the War the only secondary schools that existed were a few schools which were practically copies of the prototype in Holland and which were peopled chiefly by Dutch pupils, although there were a fair number of native and Chinese students as well. In 1915 the former so-called 'first-class native school' was reorganized into the 'Dutch vernacular school', which corresponds—as far as the level of instruction is concerned—with the Dutch-Chinese school and the European elementary school. In the same year the three-year high school was created as

the preparatory institution not only for a number of vocational and professional colleges, but also for a general secondary school system.

In the European elementary school and the Dutch-Chinese school the medium of instruction is Dutch. In the Dutch vernacular school the vernacular is used as the medium of instruction during the first two or three years, Dutch being taught as a subject in the meantime. From the third or fourth year onwards, Dutch is used as the medium of instruction. Pupils who have visited the village school (three years)—in which no Dutch is taught—can go on *via* the 'link-school' (five years) to the high school, grades II to V of the link-school corresponding with grades IV to VII of the Dutch vernacular school. In the high schools, the general secondary schools, and the university, all instruction is given in Dutch.

It will be clear from what we have said above that at the elementary level pupils are grouped along racial lines, i.e. European pupils go to the European elementary school, Chinese pupils to the Dutch-Chinese school, and native pupils to the Dutch vernacular school. This distribution—which is not strict, as there are many native and Chinese pupils in the European vernacular schools, a number of native pupils in the Dutch-Chinese schools, Chinese pupils in the Dutch vernacular schools, and European classes connected with some Dutch elementary schools—is based on the pedagogic principle of the desirability of imparting instruction to homogeneous groups. In the high schools, the secondary schools, and the university, the school population is mixed. High school (three years) plus general secondary school (three years) form the counterpart of the different types of the secondary school in Holland (five or six years). The Dutch 'secondary' schools are a combination of the American high school and junior college. The high school

in the East Indies corresponds with that in America, while the general secondary school in the East Indies can be compared—so far as the level of instruction is concerned—with the American junior college.

The general secondary school in the East Indies consists of three types: one type gives a secondary education based chiefly on natural sciences; the second type gives a secondary education based on western classics; and the third type tries to give a synthesis of oriental literature and culture and modern western sciences. This last type was created in 1926; the first one in 1919; the second one in 1920. When university education in the East Indies had finally begun (1920), further development was dependent only on the production of the secondary schools.

In 1924 the Batavia School of Law was created and in the same year the School of Engineering in Bandoeng ceased to be a private institution and was taken over by the Government. In 1927 the School of Medicine in Batavia was erected; it is governed by the same board of trustees (*curatorium*) as the Law School. The plan was to add in 1931 a Faculty of Letters (mainly Eastern philology and history) to the existing graduate schools, but the realization of this plan has been postponed, at first because of the depression, and later because of the business recession. Recently it has been taken up again. When in the past further possibilities of the development of university education have been discussed, a school of tropical agriculture and the addition of a faculty of electro-technology to the existing School of Engineering have been named.

From what has been said above it will be clear that such institutions of university level as already exist in the Indies are to be compared with the American graduate schools. In the Dutch educational system as adapted to colonial conditions there is no place for the American college.

Moreover, elementary teachers are not trained in the university but in separate vocational colleges (for three years after high school; the headmaster's certificate requires two more years of study). On the other hand teachers in secondary schools receive, as a rule, a full university education. In the East Indies, apart from the three graduate schools mentioned, there are quite a number of such vocational colleges, including a medical school, a school of dental surgery, schools for native, Chinese, and European elementary teachers, a technical school of a somewhat higher academic standing than the American technical high school, a school of veterinary science, a school of agriculture, etc.

The three graduate schools (School of Law, School of Medicine, and School of Engineering) are not mere copies of the corresponding university institutions in Holland. In Holland university students are completely free to attend or not to attend the lectures. This is not the case in the Indies: there the students are not admitted to the examinations unless they attend the lectures. So far as teaching methods are concerned, in Holland professors often prefer to treat special subjects, leaving the study of the handbooks entirely to the students. In the East Indies the professors give a general survey of the field of study, leaving the study of special subjects to the students. This difference in method—so far as it exists—is made on purpose, in order to avoid an undesirable feature of university education in Holland where, at least in some faculties (especially law), the majority of the students feel the necessity of availing themselves of the help of private tutors who prepare them for the examinations. Whereas in Holland students in the faculty of law have to pass two examinations, students in the East Indies have to pass an examination every year. In the East Indies there is more contact between the professors and the students

than there is in Holland. There is also more supervision. On the other hand professors in the Indies and in Holland enjoy the same amount of academic freedom, which is guaranteed by law. There is no such thing as a 'teachers' oath' or the like. Professors are members of the civil service. The institutions in the East Indies are recognized by the Dutch universities. Instruction over there is on the same level as it is in Holland. The degrees have the same value. The faculties in the East Indies, therefore, are very strict in keeping up the same standards. When a professor in Java goes on leave to Holland, he is often replaced by a colleague from a Dutch university during his absence; sometimes an arrangement is made by which the professor of the East Indies takes the place of the man at the Dutch university who replaces him. This exchange of professors has proved to be an excellent means of maintaining standards. The maintenance of the same level of requirements is regarded as indispensable; otherwise the graduate of the schools of the East Indies would not be able to compete with the graduate of the Dutch universities who tries to make his career in the Indies. It has always been the basis of the educational policy in the East Indies not to create institutions which only bear the name of universities without guaranteeing the same standards of excellence. In this way people tried to avoid what was regarded as a mistake in some neighbouring Asiatic countries.

The programmes of the three graduate schools are not copied from the Dutch prototypes, but are adapted to the local environment. However, there were no historical examples which could be followed. When Hinduism and Buddhism flourished in Java and Sumatra, there were schools of higher religious education; there were even scholars of great reputation. Chinese students used to come to Sumatra to study Sanscrit before they went to the Holy Land of

Buddhism. But since the population was converted to Mohammedanism these schools have disappeared. Moreover, all this education was in essence theological education. The Mohammedan schools, which replaced the older Buddhist or Hindu schools, are also theological in character. Most people who wished to make more advanced studies went to Mecca or to Egypt, and this is still the case. The possibilities, therefore, of adaptation to the local environment are restricted, owing to this situation, and also because of the necessity of maintaining Dutch standards.

Nevertheless, in addition to such subjects as civil, penal, and constitutional law, which themselves have already a character of their own, social anthropology, native customary law, inter-racial law, Mohammedan law, and the principal native languages are subjects taught—most of them as compulsory subjects—in the Batavia School of Law. As in Holland, the study of law in the East Indies includes that of economics.

Connected with the School of Law is the 'academy' of administration, where those destined for the higher ranks of the native administration receive their instruction. There again the same subjects are taught. At the School of Medicine attention is given to tropical diseases; the department of pharmacology makes investigations regarding different traditional native medicinal herbs, etc. The School of Engineering is, and necessarily must be, western in character, but its buildings are built in native style.

The students of the three graduate schools are made up of Europeans (which term includes the Eurasians), Chinese, and natives. Their distribution is shown by the following table, based on figures given in the Educational Report for 1935-6 [see overleaf].

[TABLE XII.]

Table XII.—Students in the Netherlands East Indies.

1935-6.	<i>European.</i>	<i>Native.</i>	<i>Chinese.</i>	<i>Total.</i>
School of Engineering:				
men .	66	49	31	146
women	2	1	—	3
School of Law: men .	61	204	50	315
women	6	7	9	22
School of Medicine:				
men .	88	243	159	490
women	16	12	16	44
TOTAL, all schools combined . .	239	516	265	1,020
1934-5.				
All schools combined:				
men .	219	472	228	919
women	23	17	25	65
TOTAL . . .	242	489	253	984

At the School of Engineering the study lasts four years; at the School of Law five years; at the School of Medicine seven years.

The criterion for adding more institutions of university level to the existing three graduate schools is the need of the society for university-trained specialists. As soon as that need is large enough to motivate the creation of a new school or a new faculty, the time has come for erecting such new institutions.

What is the influence of the University in the Dutch East

Indies on colonial society as a whole? In conservative groups among the European population there is still some opposition to the existence of university institutions as such. It is said that there is no need for such institutions, that they tend to uproot native society or breed political agitators, that they produce graduates for whom there is no work and are therefore spreading dissatisfaction. These contentions can hardly be regarded as based on facts. Of course some former university students have devoted their lives to politics, but among the political leaders of to-day only a very few have studied in Batavia or Bandoeng. A fact is that there is still some prejudice against the graduates of the schools of the East Indies.

Private corporations often prefer to import university-trained personnel from Holland rather than employ people who have made their studies in the Indies. It is the same attitude as adopted by foreign (e.g. English or American) companies, which often prefer their own countrymen to Dutch or native employees.

It is a fact that during the depression graduates not seldom found difficulty in getting a start; but the same difficulty was experienced in Holland and elsewhere. On the other hand during the depression the Government has never listened to suggestions from irresponsible persons who advised the closing of these university institutions. These institutions are popular with the native and Eurasian groups and have the approval of large numbers of the imported Dutch intellectuals.

Although the students tend to group themselves along racial lines, the relations between the groups are friendly: serious difficulties resulting from racial animosities have never arisen. The presence of university institutions has stimulated intellectual life and scientific research. The university influences Government policy, as often professors

are appointed as presidents or members of committees of investigation or committees for the preparation of legislation. University professors occupy an independent position which enables them to become arbitrators in difficult cases. Law professors have already had a healthy influence on jurisdiction because of their impartial and scientific criticism of the verdicts of the courts. Their influence on jurisprudence is an established fact. Moreover, the presence of university institutions stimulates scientific research. Workers in the field nowadays have the possibility of writing their doctor's theses, which they present to the graduate schools. Apart from that, university extension work is carried on.

So far as we can judge at the present time, university institutions cannot be said to have an uprooting and unsettling influence. Those institutions where *all* the problems resulting from the contacts of West and East are treated in a frank, impartial, and scientific way can be regarded as a safe harbour in a stormy sea of conflicting interests and opinions. In fact it is, generally speaking, true that the university students and graduates who have made their studies at home, make a better-balanced impression than those who have gone to Europe and have had to face the psychic crisis resulting from the necessity of adapting themselves to an unfamiliar milieu by their own unaided efforts. Exempt from all intimate social relationships and freed from the social restraints imposed by living in their own milieu, they lack the social support and discipline so necessary in the bewildering complexity of a foreign country and are abandoned to a disordered isolation. Many such students have in consequence lost their personal equilibrium and, as a result of individual maladjustment, might feel attracted to political extremism. These difficulties of accommodation on the part of the students are not experienced by those who visit university institutions in the Indies. Life abroad may

be richer and more adventurous, but it is often so very lonely, and demands an intelligent self-control and understanding which are relatively rare. Individual freedom is, in this case, not a clear gain.¹

¹ Cf. chapter iv of the author's *Alien Americans, A Study of Race Relations* (The Viking Press, 1936).

PART V: THE NEAR EAST

The University in the Arab- Moslem World

H. A. R. GIBB

IT has been argued, with some plausibility, that it was from the Arab-Moslem world that the idea of the university came to Europe, that the college is the Arabic *madrasa* or hall of learning with students' quarters attached, the hood is the Moslem doctor's *tailasān* or cape, and the degree or licence no other than his *ijāza* or written authorization to his students to teach what they had learned from him. But leaving theory aside, it is certain that learning was organized and endowed in the Arab lands during the Middle Ages on a scale which has scarcely been surpassed down to our own time. The college-mosque of al-Azhar at Cairo, which afterwards became the principal school in the Moslem world, was founded as early as A.D. 969, and in the fifteenth century a contemporary writer enumerates 155 *madrasas* in Damascus alone.

As in the medieval colleges of Europe, the staple of education was the religious sciences. Since the foundation of the religious sciences, however, was the study of Arabic, the humanities, as represented by Arabic literature, had a large share in the courses of instruction, and it is due to this that the linguistic and literary tradition of Arabic has been preserved unbroken. At the same time, the 'profane' sciences such as mathematics were not excluded, and three of the colleges at Damascus were for medical studies. In its heyday, therefore, the *madrasa*-system approached, even

if distantly, the modern conception of the university as a centre for all branches of higher education, in the medieval acceptance of the term; and came even closer to it in the spirit of learning for learning's sake. Apart from heresy-hunts, both teacher and student seem to have enjoyed almost untrammelled freedom in the choice and pursuit of studies. The strength of the academic tradition can be seen in the thousands of text-books which have survived from the early and later medieval periods, and the respect which was accorded to it is reflected in the vast biographical dictionaries of scholars in all fields of learning which were compiled century after century down to little more than a hundred years ago.

In view of all this, some reasons must be adduced to explain why the *madrasa*-system failed to develop into a true university, and, if anything, regressed from its medieval level. Two main causes, interacting one with the other, were probably responsible. In the first place, the subjects of study formed a closed circle, into which no ideas from without, whether ancient or modern, were allowed to penetrate. Early as the *madrasas* were in point of date, they came nevertheless at too late a stage in the development of the Islamic culture. The struggle with Greek philosophical thought, which was to prove such a stimulus and solvent in Europe, was already over in Islam, and the outcome had been to yoke an emasculated philosophy to the car of theology. The *madrasas* were founded, not in order to pursue knowledge in general, but with the express purpose of defending and propagating an accepted corpus of 'learning', all the branches of which had been dovetailed into one another to form a unitary system, based upon a single body of axioms. There was no diversity of principles to stimulate speculation, and as time went on learning sank ever deeper into the traditional ruts.

But this static condition would not have come about so rapidly nor so completely had it not been for the methods employed in learning. From earliest childhood, the Moslem student was taught to memorize his texts. A great quantity of material was impressed upon his mind before he even began to understand it, and fifteen or twenty years were spent in the slow effort to digest what he had learned by rote. The system produced in the end scholars with an immense range of information within the closed structure of 'learning', but this information consisted mainly of facts linked to one another in a traditional sequence; and though logic and disputation were given a prominent part in their studies, the grinding effort of assimilation rendered them incapable of independent investigation into the organic relations of the facts to one another and to the structure as a whole.

Nevertheless, whatever criticism may be brought against the system, we must bear in mind that it ministered to the deepest needs of a society which was founded upon and held together by a religious culture, and which had been cut off from external cultural contacts since the later Middle Ages. It sustained a tradition and an ideal of learning which was not only of value in keeping alive the conception of intellectual attainment as a good in itself and a necessity of social life, but which also preserved from decay the two elements with which were bound up the history, the ideals, and even the existence of the race: the Arabic language and Islam. For it is with his language that the self-consciousness and emotional life of the Arab is most intimately linked; and it is in and through Islam that he and it have attained to fullness of self-expression and have made their mark on the history of mankind. Only when we appreciate these facts shall we be in a position to investigate and understand the effects which have followed from the impact of European ideas in education upon the Arab lands.

That impact took different forms and developed along different lines in Syria and Egypt. In Egypt, European ideas were introduced by the French advisers of Muhammad 'Ali, the founder of Egyptian independence (1805-49); in Syria, they were introduced by French Jesuit and American Protestant missionaries. The institutions set up by the former all proved ephemeral, except for the School of Medicine; whereas from modest beginnings in 1844 and 1846 respectively, the schools set up by both of the latter took root in the country and eventually grew into colleges of a western type. The principal reasons for this success were that both colleges identified themselves with local interests, the Jesuits with that of the native Catholic Christians of Syria and the Lebanon, the Americans with the expanding aspirations of the Syrians generally; and both associated their educational work with the Arabic literary revival which had begun independently in Beirut. The American college in particular adopted Arabic as the medium of instruction, even in technical subjects, until 1878-83, and the text-books written by Cornelius Van Dyck and other members of its staff had a wide circulation. It is significant in this connection that the only one of Muhammad 'Ali's foundations to exert a real influence on the intellectual life of Egypt was the translation bureau, which was directed and staffed by Egyptian scholars trained in European languages, and which issued some hundreds of Arabic text-books on a variety of subjects, translated from French, English, and Italian works.

Throughout the nineteenth century, however, there was no university, in any real sense of the word, either in Egypt or in Syria. Educationally, the period was one of confusion, in which old systems were breaking down and new systems were still in the experimental stage. Al-Azhar, it is true, was still active; but it had suffered a severe set-back both

financially (since Muhammad 'Ali confiscated its endowments) and morally. Its prestige was rapidly diminishing, and not only was it a citadel of traditionalism amidst the ferment of new life which was going on around it, but it was retrogressing even from its earlier standards.¹ It was not until 1896 that the first tentative steps were taken to modernize the curriculum to some extent, and since then numerous partial projects of reorganization have been elaborated and applied to the same end.² The earlier reformers, unwilling to touch the vested interests of al-Azhar, adopted the plan of creating a separate higher training college. In Tunisia also, where the ancient Zaitūna college-mosque holds a position similar to that of al-Azhar in Egypt, the same need was met shortly before 1900 by founding a supplementary college, the Khaldūniya. This, which is maintained by subscriptions and donations, offers to the students of al-Zaitūna free instruction in modern subjects, which are taught in Arabic by Tunisian professors, most of whom give their services gratuitously.

Nevertheless, European ideas were already active in Egypt, through the influence of the large number of Egyptians who had been sent to complete their training in Europe. At length in 1906 a group of Egyptians, headed by Prince Ahmad Fuad, issued a manifesto calling for the establishment by public subscription of an Egyptian university 'to create a body of teaching similar to that of the universities of Europe and adapted to the needs of the country'. The university was opened in 1908 as an evening school with two Egyptian and three European professors, and reorganized in 1910 as a Faculty of Arts and a Department of Economics,

¹ See, for example, the descriptions given by E. W. Lane in *Modern Egyptians*, ch. ix, and Lord Bryce in *Studies in History and Jurisprudence*, ch. xii.

² See A. Sékaly, 'L'Université d'el-Azhar et ses Transformations' in *Revue des Etudes Islamiques*, vols. 1-11.

with four Egyptian and seven European professors. In the latter year there were 107 matriculated men students, of whom 82 were Egyptians. No Egyptian women attended the ordinary courses, but special lectures on practical subjects were given to them separately. The circumstances of the following years were too adverse to the success of this initiative, and in 1924-25, when Prince Ahmad Fuad had become King of Egypt, the Government took the matter up and refounded the university on an adequate scale. The existing Medical School and School of Law were incorporated with it as faculties, and a Faculty of Commerce was added subsequently by transferring the Higher School of Commerce. The work of the old university, however, did not prove fruitless; for among the most active members on the staff of the new university were some of the former students of the old, who had subsequently been sent on mission to Europe.

Thus there are at the present day four institutions in Egypt and Syria which may claim to be classed as universities,¹ and it will be convenient to begin with a brief analysis of the activities of each.

Catholic University of St. Joseph, Beirut. Two faculties: Philosophy and Theology, and Medicine,² together with a School of Law (founded in 1913) and a School of Engineering (founded in 1919), both in association with the University of Lyon. Instruction is given in Latin in the first-named faculty, and in French in the other departments. The professors mostly are French. In 1938 the numbers of regular students were: Philosophy and Theology 29; Medicine 190 (exclusive of 28 in the School of Pharmacy,

¹ In 1926 the Schools of Law and Medicine at Damascus were re-organized as constituent faculties of a 'Syrian University'. The language of instruction in both Schools is Arabic. The so-called 'American University' in Cairo is only a secondary school.

² From 1902 to 1914 there was also an Oriental Faculty.

34 in the Dental School, and 30 in the School of Midwifery); Law 195 men and 11 women; Engineering 51. Non-Catholics are in a minority, and there are no women students except in the Schools of Law and of Midwifery.

American University of Beirut. Two faculties: Arts and Science, and Medicine, together with an Institute of Music. Instruction is given in English, except in the Arabic department, where it is given in Arabic. There are some sixty professors and associate-professors (exclusive of lecturers), of whom about half are Americans or Europeans, and the others Syrians or other Orientals. In 1937 the students numbered: Arts and Science 268; Medicine 126 (exclusive of 85 in the School of Pharmacy, 16 in the Dental School, and 64 in the School of Nursing). Christians and non-Christians are approximately equal in numbers, Moslems forming the most numerous group, followed by Greek Orthodox. In 1937, 34 students were holders of scholarships given by the Governments of 'Iraq, Palestine, and the Sudan. There were 26 women undergraduates: 7 in Medicine and 19 in Arts and Science (4 of the latter being Moslems), in addition to one woman student in Pharmacy and the 64 Nursing students (2 being Moslems).

Egyptian University, Cairo. Five faculties: Letters, Sciences, Law, Medicine, and Commerce (the last-named incorporated only in 1935). Instruction is given where possible in Arabic, but in the more technical subjects French and English are employed. The professorial staff is composed of Egyptians and Europeans, the latter being in the majority in scientific subjects. In 1934-5 the regular students (exclusive of the preparatory sections) were distributed as follows. Letters 341 men and 32 women; Sciences 163 men and 5 women, Law 632 men and 1 woman; Medicine 586 men and 36 women (exclusive of 76 men and 1 woman in the Dental School, 77 men in the School of

Pharmacy, and 202 women in the School of Midwifery). The inclusion of the Faculty of Commerce brought in over 1000 new students, and since 1935 there has been a disproportionate increase in the number of undergraduates, both men and women, especially in the Faculty of Letters.¹ The great majority of students, both men and women, are Moslem Egyptians, but there is an increasing enrolment from the other Arab-Moslem lands.

*College-Mosque of al-Azhar, Cairo.*² In spite of the reforms of recent years, it is still somewhat misleading to present the organization of al-Azhar in parallel terms to those of the three preceding institutions. According to the most recent Decree (issued in 1936) the college is divided into three 'faculties': Islamic Law, Religious Sciences, and Arabic Language; and thirty 'grands ulémas' are classed as Professors. Instruction is, of course, entirely in Arabic, and none but Moslems are admitted as students. It is difficult to give exact figures, but the numbers of those in the advanced and specialization sections (which alone can claim to be considered here) approximate to 2000. Although the great majority are Egyptians, there is, as there always has been, a strong proportion of students from other Moslem lands, both Arab and non-Arab. Women are entirely excluded.

It is noteworthy that all four institutions maintain some form of preparatory instruction: Both universities at Beirut have affiliated secondary schools, and al-Azhar directs an elaborate organization of primary and secondary 'religious

¹ In order to meet this rapidly growing demand, a second university at Alexandria is now being organized.

² Although the official French translations of decrees employ the term 'Université d'el-Azhar', the Arabic text always retains, more correctly, the title *Jāmi'*, 'mosque', as distinct from the modern technical term for a university, *jāmi'ah*.

colleges' in Cairo and several other towns in Egypt.¹ The Egyptian University is entered direct from the Government secondary schools, but it too has found it necessary to set up preparatory sections in the Faculties of Law and Medicine.

From this brief statistical summary it will at once appear that in the Arab-Moslem world there are still two utterly opposed conceptions of a university. The American and the Egyptian universities represent the western conception, al-Azhar stands unyieldingly for the supremacy of Islamic dogma, and the Catholic University halts between the two, dogmatic in its theological faculty, western in its medical and legal schools. The fact is symptomatic of the violent conflict of ideas, not only in the educational sphere, but extending far beyond it into all fields of political, social, and cultural life, which is characteristic of the Near Eastern countries at the present time. It is true, as will appear later, that this conflict is sometimes mitigated or glossed over owing to the influence of external factors, but on a general view it may broadly be said that the two former universities, together with the schools of the Catholic University, support the modernist, and in some respects secularizing, tendencies, as against the traditionalist Islamic outlook which is fostered by al-Azhar.

Before discussing these tendencies, however, it might be pertinent to ask how far the standards of the two 'western' universities compare with those of universities in western Europe. But the circumstances and limitations of the material with which they operate do not allow of a direct comparison. This applies less to the teaching staff than to the students. The quality of the latter is necessarily determined by the general character of secondary education,

¹ The global statistics of the 'University' include the students at these schools also.

and it cannot be said that either in Egypt or in Syria or Iraq do the Government secondary schools supply a sound basis for university education. The initiative of teachers is cramped by minute regulation of every detail and the pupils are repelled by a monotonous system which sets a premium upon memorizing. 'Egyptian centralization has perpetuated an authoritarian, formal, and mechanical type of education, emphasizing academic preparation for Government employment, and has ignored the principle of freedom with its respect for individual and community development. The result has been an emphasis on the acquisition of irrelevant knowledge, formal learning, discipline by punishments, reverence for tradition, and the acceptance of authority.'¹ It is true that the alternative to centralization may, in present circumstances, be anarchy; but this, such as it is, is the common preparation for higher studies, even if conditions in Syria are somewhat less rigid.

This state of affairs lays upon the university teachers some special responsibilities. They have first and foremost to counteract the mechanical methods of secondary education, to broaden the outlook of their students and bring the humanist element into their studies, and so foster the development of personality. The western scholastic tradition cannot be applied in its entirety, and remains beyond the reach of all but a few; for the great majority, the true end of university education is to liberate the intelligence. This aim the American University has set before itself almost from the beginning, and has accomplished with a large measure of success. The Egyptian University has been less successful as yet, for a variety of reasons. It is still a very young institution, and it cannot bring the social influences to bear that play so large a part in the American

¹ Russell Galt, *The Effects of Centralization on Education in Modern Egypt* (Cairo, 1936), p. 120.

University, where all the students are resident. It cannot, moreover, escape the influences of its environment, which hamper its full freedom in action and thought, nor can it quite shake off the mechanical and vocational conceptions of education. But the most serious handicap to its progress hitherto has been the recurrence of political agitation, involving both students and teachers. Quite apart from the actual interruption of studies, often for long periods at a time, their immersion in political activities, with the active encouragement of all political parties in Egypt, has produced a psychological unsettlement, from which both academic standards and cultural assets have suffered. It is enough to remark that within recent years the Egyptian Government has twice successively lowered the pass-mark required to qualify for a degree.

Al-Azhar also has been affected by some of the same influences, while in so far as the organization of studies is concerned, the recent reforms have done little or nothing towards broadening and liberalizing the mentality of its teachers and students. The education given in its primary and secondary schools is even more unsatisfactory in quality and mechanical in method than that of the government schools, and in the colleges themselves centralization and minute regulation of the courses have been carried to extreme lengths. The somewhat timid introduction of 'modern' subjects has not loosened the grip of tradition and authority, which has, if anything, been strengthened by a sense of conscious opposition to the policy of the Egyptian University.

It would seem, then, that the coexistence of the two academic centres in Egypt has intensified the struggle which was already in progress between the old Islamic ideals and the new conceptions introduced from the West; and not only in Egypt but in the other Moslem lands also, in view of the many students from them who study in al-Azhar.

Certain it is that both sides frequently look to their respective universities for leadership. There is scarcely a single internal problem on which their principles do not clash, and inevitably so, for the critical questing spirit which has been fostered by European ideas of education is impatient of the old order in almost all of its manifestations.

But it would be difficult to say precisely what part the universities, as distinguished from other agencies, have played in stimulating and focusing the contrast of ideas, or to what extent they are to be credited with the development of scientific activities. The medical schools have certainly contributed to the latter, and the schools of law to the former. The American University, through the large number of Syrians who have played a leading part in the intellectual life of both Egypt and Syria, has taken an active part in disseminating western ideas, but probably more still is due to the direct influence of European universities upon the three generations of students who have been sent to pursue finishing courses abroad. At all events, the extension of modern medical science in the Arab countries is one of their most striking features, even though it still has to contend with a vast heritage of superstition. The progress of physical science has been slower, but it is rapidly gaining ground. There has been a notable output of scientific works in recent years, especially in Egypt; and even religious circles, while disputing some of the basic assumptions of western science, show an anxiety to keep abreast of modern scientific thought. Modern Arabic literature as a whole is swinging further and further from the traditional forms, under pressure from the modernist educated classes, and it shows an increasing tendency to discard its medieval elements and assimilate the ideas and literary traditions of France and England.

The antithesis between the two ideals is most marked

in the fields of law and social life. The legal schools have inculcated a conception of law and legislation which is fundamentally opposed to the Moslem view of law as a system based on divine inspiration and closely associated with religion, and that not only among the large class of legal practitioners but also amongst the educated mass. In so far as civil and penal law are concerned, the western conception has carried the day, except in Arabia proper; but in all Arab-Moslem lands personal law is still administered by the religious courts, and all the forces of al-Azhar are mobilized to ward off any encroachment upon their preserve. Although the modernists strongly criticize many features of the religious law and of its administration, the attack has not been pressed, for reasons which will appear immediately. It is likely, however, that the conflict is only postponed for the time being.

The western conception of law has also a bearing upon the question of political organization, and it is not surprising to find the strongest supporters of democratic institutions among the lawyers. The religious authorities, for their part, have generally supported the ideal of parliamentary government, provided that the interests of Islam are safeguarded; and in so far as they show a special interest in political matters, it has been directed rather to the question of the caliphate.

It is, however, around the problems and projects of social reform that controversy is fiercest, especially as it tends to concentrate upon the 'women's problem' in its various aspects. Throughout the Arab East, graduates of the American University have long taken the lead in championing the unveiling of women and the expansion of their sphere of social activity, but it must be admitted that they have achieved comparatively little. The Egyptian University, on the other hand, has begun to raise the problem in much

more serious terms. It is barely ten years since the first woman student was admitted to the Faculty of Letters; by 1935, as the figures on page 287 show, there were 32 in that faculty, and 36 in Medicine, and since 1935 their numbers have increased out of all proportion. In the present year (1938) there are between 400 and 500 women students, of whom about 240 are in the Faculty of Letters. The educational results may be doubtful (women students are taken gratuitously and their entrance examination is of a lower standard than that of the men), but the social issues raised are certain to be both grave and difficult. It is perhaps more striking still that there is already one woman lecturer on the staff of the university, who lectures to both men and women students. Al-Azhar naturally views co-education and the social equality of the sexes with strong hostility, and it is impossible as yet to foresee whither the conflict will lead, since the public activities of women are still restricted to education, journalism, and hospital work.

In regard to more general questions of social reform, in both rural and urban areas, the American University still takes the lead, by organizing summer camps in agricultural districts, social hygiene centres, and the distribution of booklets to the village population.

The conflict of ideas between the two schools of thought in all internal problems has, however, been prevented from developing to its full intensity by their community of feeling in what may be called the external features in which the Arab lands as a whole are contrasted with Europe. The first of these is the recovery of national self-consciousness, whether in the form of a common ideal of Arabdom, or in the narrower form of local nationalism. As in some other countries, there is a tendency for the universities to become focuses of nationalist sentiment. The other is closely connected with this, namely, the emphasis laid on Islam as an

clement in the national heritage. It is true that on both of these subjects there exists a certain opposition between those who wish to realize the pan-Arab ideal or to preserve Islam in its traditional form, on the one hand, and those who stand for the narrowly nationalist ideal or who aim at a reformed Islam on the other. But these lines of division cut across the division between al-Azhar and the universities, and also, to some extent, across religious divisions, since even Christian Arabs to a large extent take a pride in the Islamic tradition. The religious reformist agitations, which draw largely upon European ideas, therefore stop short of pressing for such fundamental changes as may weaken the moral unifying force which Islam supplies. Even the small group of those who have personally given up their Islamic beliefs would still regard any serious breakdown of the religious system as a calamity; and whatever effect European university education may have had upon religious conceptions generally, there is a fundamental difference in this respect between the Arab lands and Turkey.

These two factors will also, in all probability, very largely determine the future developments and results of university education in the Arab-Moslem lands. Causes of conflict will doubtless continue to exist, but in changing forms. If history is any guide, the most characteristic feature of Arab Islam is its acceptance of opposed ideas and mediation between them, either in the form of a synthesis, or in assigning separate spheres to each and tolerating their coexistence. 'Progress', or the expansion of ideas, though directed by the example and influence of the West, and consequently away from the Moslem tradition, inevitably spreads by contagion to the Islamic elements also. The reactions which it sets up bring about a crisis, which ends as a rule by adaptation of the organism to the new currents of thought and its inoculation, as it were, against future contagions from the

same source, at least for a time. It is only by some such process that the inner disharmony, which at the present day seems to have reached a dangerous height, may be surmounted; and neither side shows any desire to force matters to a disastrous breach.

The attainment of this result, however, will probably depend largely on the preservation of the other cultural heritage of the Arabs, the Arabic language, unrelated as the two may seem at first sight. The problem here is a two-fold one, the safeguarding of the unity of Arabic, and its evolution to meet the new cultural needs. It is being faced in both aspects, and it is noteworthy that both the Egyptian and the American universities are in this matter at one with al-Azhar, although they may differ in details of method. The splitting-up of the Arabic language into regional linguistic systems would remove one of the main safeguards against dissimilar and conflicting solutions of the main problems of social and cultural life, and so lead through cultural dislocation to a breakdown and 'balkanization' of the Arab world.

That the universities will play a leading part in shaping these cultural issues, either toward the perpetuation of division or toward the recovery of inner unity, is self-evident. But more is needed to enable the Arab-Moslem countries to achieve a healthy and progressive public life. It has always been a weakness in Arab society that its intellectual energies have not been directed toward grappling with the practical problems of the life of the community. The educated classes have for centuries shuffled out of their responsibilities, either by an over-scrupulous abstinence from public life or by excessive complaisance toward the political authorities. The whole of public life has suffered in consequence, in tone, standards, ideals, and grasp of economic and political realities. In these fields also the universities have a mission

to fulfil, by destroying false values and training up a generation of citizens to play their part in raising the standards of political and economic life. It is not enough to turn out some thousands of graduates with a book-knowledge of economic, commercial, or political theory. These will achieve little until public life is penetrated by a sense of real values, and the inherent tendency of individuals to relax their personal efforts and rely on others is counteracted by the growth of sound habits of thought.

Such an enhancement of individual responsibility will react on the whole structure of politics and society. It will lift political life out of the arena of personal partisanship, and set it on the ground of principle. It will enable the Arab lands to husband and develop their resources, and to face the social and economic problems which seem insoluble at the present day. And it will re-create a national culture, neither clinging to the relics of an irretrievable past nor presenting a pale imitation of European civilization.

The University in Turkey

T. K. ERIM

Introduction

IF the title 'The University Outside Europe' is intended to denote the universities in the countries not geographically part of the continent of Europe, then the present study ought more properly to have been included in the previous volume, published in September 1932 under the title *The University in a Changing World*, which dealt particularly with the European universities. For there is no doubt that Turkey, both by its geographical position, and still more by the cultural, social, and political renaissance of which it has been the scene, is one of the most European countries of the Near East. It is, therefore, with the object of filling a gap that this essay has been included in the present volume. It aims at giving a brief sketch of the thoroughgoing changes which have occurred in this rapidly changing region of the world, with particular reference to higher education.

Historical Sketch

In the Middle Ages, under the Seljuk Empire, of which the former Ottoman Empire was in certain respects a continuation, the real home of Islamic culture and learning was the *madrassa*. The subject principally taught in the *madrassa* was Moslem law, which—it should be remembered—includes all branches of spiritual and moral activity. From constitutional down to commercial law, it was the Moslem sacred law, the *Shari'at*, which constituted the one

and only source of all jurisprudence. It was interpreted by means of the theological sciences, and those who were responsible for expounding it had to be graduates of one of the principal *madrasas* of the empire.

The first *madrasas* of the Seljuk Turks were founded in the eleventh century at Iznik (Nicaea) and Brusa. The higher education which was given in them comprised several degrees. Those who completed their studies were authorized to pronounce on both sacred and secular questions of the Moslem world. The judges (*cadis*) and counsellors (*muftis*) of the empire were recruited from these schools.

The Ottoman conquests were destined to give a considerable impetus to these establishments of higher education. After the capture of Constantinople by Mohammed II (1453), the capital of the empire became the cultural centre of the Moslem world. The conqueror, himself a highly cultured man, founded a number of impressive *madrasas*, divided into several 'faculties'. They were, however, designed above all to furnish the empire with its higher officials, and more particularly its jurists. The sacred texts, which constitute, as we have seen, the chief source of law, lent themselves to the most abstruse interpretation. The 'praetorian' law, which the muftis elaborated, discovered ingenious solutions which did not follow from a strict interpretation of the Koran. In this way the reign of Suleyman the Magnificent (1520-66) saw the rise of a galaxy of jurisconsults, the most famous of the empire, and indeed of the whole world.

Like all medieval universities, the *madrasa* proved to be a factor making for unity, in this case a unity between the different parts of the Moslem world, which unity reached its consummation with the conquest of Egypt under Selim I (1517) and his accession to the caliphate. But a decline was soon to set in. Well-tried intellectual disciplines gave way

to pure scholasticism. The deductive method, supported by Aristotle's logic, which was firmly rooted in the *madrasa*, was to transform that institution, formerly so flourishing, into a bulwark of fierce conservatism. The *madrasa* became the home of a fanaticism which was destined to undermine the very existence of the State. This state of things lasted right up to the nineteenth century. All the cultural institutions of Turkey up to that date were provided by the *madrasas*. They were under the *Sheikh ul Islam*, the representative of the religious power in the State, who occupied, in the official hierarchy, the place immediately after that of the Grand Vizir.

It should be emphasized that while higher education in the fields of administration and law fell within the province of the *madrasa*, philosophy and letters were taught in *Tekkes* or *Zaviyes*, which were kinds of religious fraternities, composed of the initiated of various sects. These institutions had already been in existence in the Turco-Islamic States which preceded the Ottoman Empire. In opposition to the *madrasas*, the *Tekkes* were educational centres in which the most delicate flowers of oriental mysticism flourished in a riotous profusion. These fraternities were innumerable. We shall here mention only two of them, noted for the political role which they played in the empire: the *Bektashis*, who had authority over the janissaries, and the *Mevlevis*, the head of whom was privileged to preside at the ceremony of enthronement and to present the sovereign with the sword symbolizing his accession to power.

The first school to be independent of the *madrasa* was the School of Military Engineering (*Muhandis-Khaneh*), founded in 1795. The progress made in the technique of warfare had led the Ottoman leaders to envisage the subsequent creation of a military academy. Parallel with the foundation of a law school, a school of medicine was established.

Finally, in 1871, the University of Istanbul was founded, under the name of *Dar-al-funoun* (House of Learning). Unfortunately, it enjoyed but a short life: its doors were soon closed, and not reopened until 1900. This university, reformed after the revolution of 1908, did not finally acquire full status until July 1933, when it discarded its old title for that of 'University of Istanbul'. It is a university in the full sense of the term, inasmuch as in it young men and women, eager for knowledge, pursue their studies in six faculties, and under the aegis of a teaching staff comprising 341 professors, lecturers, readers, etc.

The Universities of Ankara and Istanbul

Ankara, the capital of the Turkish Republic, is the fountain-head of all the social and political activities of modern Turkey. In it, consequently, are to be found the principal cultural establishments, witnesses to the profound aspirations of the Turkish people for progress. The primary and secondary schools of the capital may in many respects serve as models for similar institutions in the West. Among many which may justly be considered models of their kind we may mention: the Girls' High School, the Teachers' Training College of Drawing and Handicrafts, the College of Commerce, the School of Arts and Crafts, the School of Architecture, the Institute of Education, and the Institute of Agriculture.

The actual University of Ankara has been organized faculty by faculty. Ankara possesses at present a Faculty of Law and a Faculty of History, Geography, and Foreign Languages (both ancient and modern). The School of Political Sciences (formerly School of Higher Administrative Studies), transferred from Istanbul to Ankara, has been enriched by the addition of a section of Financial Studies. Then there is the Institute of Atatürk, divided into five

departments, namely mathematics, natural sciences, letters, history and geography, and education. The Institute of Agriculture, composed of several sections, is one of the most complete organizations in the field of professional education.

In 1937-8, 5,076 students attended the University of Istanbul, distributed among the different faculties as follows:

Faculty of Sciences	1,425
Faculty of Medicine	1,710
Faculty of Law	1,161
Faculty of Economic Sciences	251
Faculty of Letters	509
Faculty of Theology	20

TOTAL . 5,076

The teaching staff, composed of 341 persons, includes 42 professors of foreign nationality, divided among the first five of the faculties listed above.

At Ankara in the same year (1937-8) 564 students took courses in the Faculty of History, of whom 127 were women. 356 were enrolled at the School of Political Sciences. The Academy of Fine Arts at Istanbul was attended by 360 students.

A comparison of the figures given above with those of 1923-4 shows a strongly marked upward curve in Turkish education. Leaving out of account the progress made in elementary and secondary education, both in the organization of education and in actual attendance, we note that the students enrolled at the University of Istanbul and the various specialized institutes of professional education are three or four times as numerous as they were then. Thus the University of Istanbul alone, which in 1923 had only 1,495 students, now has 5,076.

These figures show that the University is prepared to

play a leading part in the cultural development of Turkey. Even during the time when the country was struggling for its independence, Mustapha Kemal, in a speech before the National Assembly on 1st March 1922, traced the broad outlines of educational policy in the country which was to be: 'While', he said, 'every effort should be made to combat ignorance, it should at the same time not be forgotten that we must without delay arm our fellow-citizens with practical knowledge, and so fit them to become as rapidly as possible useful elements in the economic and social life of the country. It cannot be doubted', he added, 'that a civilized community should not cease its efforts at that point. The development of our national genius, and the ascent to the stage of lay civilization which follows from it, are possible only by the development of a national consciousness and the establishment of an *élite* of high intellectual quality.'

These declarations constitute in themselves a whole programme. To assure its execution, special commissions were established, even before the conclusion of the Treaty of Lausanne. The task was an immense one. The World War, followed closely by the War of Independence, had made serious breaches in the ranks of the intellectual *élite* of Turkey. The few slight reforms which had been enacted after the revolution of 1908 had not sufficed to free the youth of Turkey from the tutelage of religion, the chief vehicle of which, the Arabic language, had come in large measure to replace Turkish in the schools and in the administration, even penetrating into the home itself. Literary production, with the exception of several fine poets, had not escaped this general contagion. The first task, therefore, was to restore the Turkish language to its proper and undisputed place. This restoration implied at the outset the abandonment of the Arabic characters and the adoption of the Latin alphabet. Indeed, the former were hardly suited to Turkish phonetics:

to take one example out of many, the words meaning 'fur', 'you see', 'oar', and 'well-cooked' were written identically, by means of one vowel and three consonants, although pronounced differently. Special courses for adults, even in the smallest towns, together with the rendering compulsory of elementary education, successfully defeated the scourge of illiteracy, which disappeared in Turkey within a few months. Balancing this development of popular education, there was the creation of special chairs at Ankara. A galaxy of Turkish and foreign scholars initiated the youth of the country into higher linguistic studies, including ancient Greek and Latin. In addition, a special academy proceeded to conduct research in this field, and linguistic congresses were organized periodically under the aegis of Atatürk and enjoyed the participation of the highest authorities.

Finally, thought had to be given to the problem of teaching the Turkish people its own history. Although this history had been one of the most glorious and most instructive, the historians of the empire had gone so far as to identify Turkish history with that of the Ottoman Empire. Stock phrases, from the influence of which even the best historians were not free, made the Turks out to be descended from a tribe which, coming from the Caucasus, had invaded Asia Minor and founded the Ottoman Empire there. This legend had to be discarded and a new and unprecedented importance attached to the study of history. Chairs of Turkish, Sumerian, Hittite, Chinese, Indian, and Hungarian studies were created at the same time as a Faculty of History, Geography, and Languages. This faculty, inaugurated in 1935 at Ankara, aimed at grouping together all the higher studies of language, history, and geography, in conformity with the lines laid down by Atatürk in the speech quoted above.

We shall not here attempt to describe the progress made

in the sphere of professional education, since this important subject would demand a special essay to itself. The Teachers' Training College, Institute of Agriculture, and other specialist institutions furnish the country with technicians and specialists in their respective fields.

We trust that enough has been said to give a summary survey of the present state of university education in Turkey, and the role which the Turkish University is called upon to play. In a few years we shall see another university open its doors in the capital of one of the eastern departments, hitherto a hotbed of reaction. To the victory won seventeen years ago are added every day new victories of a different kind, but none the less important. They are due to the genius of Kamal Atatürk, one of the greatest men of action of all times, whose untimely death the Turkish people has recently mourned. In conclusion, we cannot do better than quote a passage from a speech made by Ismet İnönü, his worthy successor and lifelong collaborator: 'In politics and in administration, the worst thing of all, the most irreparable evil, both for societies and for nations, is to see half-educated people in control of rights and privileges.'

Translated from the original French.

The University in Iran

G. A. RAADI-ADERAKHCHI

Early Development: The Madrasas

THE tradition of higher education in Iran goes back to pre-Islamic days. Even if we pass over the reciprocal influences that the ancient Greek, Roman, and Iranian cultures, and notably their educational methods, had upon one another, it is easy to show that there existed under the Sassanid Empire (226-652) a form of higher education with its own rules, methods, and institutions, albeit limited, and much coloured by religious (Zoroastrian) and aristocratic influences.¹ The freedom of thought practised at this time in Iran, and undoubtedly reflected in higher education, had attracted to the Sassanid court seven famous philosophers who, as a result of the reign of intolerance then in force in Byzantium, and after the closing of the School of Philosophy at Athens (in 529), were seeking a refuge abroad.² The medical schools of this period enjoyed a special reputation. One of them, that of Gundeshahpuhr (Jundishapur), was so firmly established that it survived the Sassanid dynasty, and formed 'an important centre of medical art in the first centuries of Islam'.³ Furthermore, this institution was used as model when al-Mamun, a Caliph of the Abbassid dynasty (813-33), founded an academy called Bait-al-Hikma at Baghdad.

Following the advent of Islam and the adherence of the

¹ A. Christensen, *L'Iran sous les Sassanides*, pp. 411-12.

² *Ibid.*, p. 423.

³ *Ibid.*, p. 418.

Iranians to this religion, the history of Iranian culture becomes intermingled with that of Islamic civilization. However, the latter was so much influenced by Iranian characteristics, and bore so many marks of its ancient culture, that most students of the subject see even in Moslem culture the prolongation, or at least the renaissance, of the Sassanid civilization, a renaissance in which all the Moslem peoples, and first and foremost the Iranians, shared.

The emergence of numerous Moslem universities, usually known by the name of *madrasa*, constitutes the most remarkable chapter in the history of Moslem civilization, and in this field the Iranian contribution is no less considerable. From the ninth century until the middle of the eleventh, many *madrasas* were founded in Moslem countries, and above all in the Khorasan district of Iran. But the creation of the universities which served as models for the whole Islamic world was the work of an Iranian Prime Minister, Nizam-al-Mulk (in office 1064-92), who founded in the eleventh century three universities in Iran, of which two were at Nishapur and one at Balkh, and a fourth—the best known—the Nizamiya of Baghdad (September 1069).¹ The establishment of the universities of Nizam-al-Mulk was a decisive date in the history of higher education, as well as in the spread of the *madrasas* throughout all the Moslem countries, and in the elaboration of a new university tradition; for 'the type he evolved of schools providing lodging and maintenance for the students became the prevailing one after his time'.²

The *madrasas*, which in the first centuries of Islam had devoted themselves to the single aim of studying and interpreting the contents of the Koran and the words of

¹ *Encyclopédie de l'Islam*, vol. iii, pp 402-4 (French text)

² *Ibid.*, p. 404.

the Prophet and of his successors, gradually enlarged the sphere of their activities. They made a profound study, in successive stages, of all branches of human knowledge: these they divided into the physical and metaphysical sciences, that is to say, everything that can be reached by logical reasoning, observation of nature, or by religious dogma. For hundreds of years the spirit of disinterested study and of purely scientific research had animated scholars and students to such a degree that they did not hesitate to attack, among philosophical and scientific questions, even those forbidden by their religion. To this philosophical principle must be added the educational method, which can be put briefly as follows: full liberty of criticism, but always accompanied by the respect of the student towards his master; and the system of questions and answers which constituted the basis of the instruction. Among other characteristics mention may be made of the fact that education was given free of charge and was endowed by gifts, bequests, religious foundations, and the like.

This spread of higher learning continued until the beginning of the thirteenth century, when the cataclysm of the Mongolian invasion, destroying not only cities but their material and spiritual riches, caused a profound disintegration in the intellectual life of Iran and of other countries which lay in its path.

Three centuries after this event, when the Iranian people came to itself again, won back its national unity, and re-organized its cultural life under the Safavid Dynasty (1499-1732), Shiism — which, by an imperfect analogy, can be called Moslem protestantism—became the official creed of the country. As a result of this, higher education in Iran became increasingly distinct from that of the other Moslem countries, which remained faithful to the Sunnite creed. Thenceforward higher learning was pursued by many

devotees, sometimes very enthusiastically; but they never reached, especially in the quality of their work, the heights attained before the Mongol invasion. The truth is that as a result of this catastrophe and the troubles which followed it the institutions of higher learning in Iran were condemned to a manifest and ever-increasing decadence. This decadence affected both their scientific conceptions and their educational methods.

Such was the state of things down to the end of the eighteenth century.

Contact with European Ideas

From the beginning of the nineteenth century, the political and intellectual relations of Iran with the western nations began to grow stronger. As has already been said, higher education in Iran at this time was following a downward trend. At the same time, its importance, although diminished, was not negligible. But because of the factors which we have described above, these studies had become increasingly abstract and theoretical and had lost their practical value. Men of good sense no longer treated them with the traditional respect.

In the meantime, following the development of relations with Europe (the Europe of the French Revolution, of the first Empire, of technical inventions and of the industrial revolution), thoughtful people began to recognize the superiority of higher education in Europe, at least in its educative methods and practical results. These opinions were strengthened by the actions of the French Revolution, which, contrary to its principles and theories of the unity and universality of science, multiplied the number of specialized and professional schools and closed the doors of the universities. They were further strengthened by the Napoleonic conception of the universities, which considered

them merely as instruments for the preparation of officials for the public services.

Thus, impressed by the political, industrial, and educational progress of certain western nations, a number of ministers and enlightened men resolved to introduce or create in Iran the elements of a new higher education, on the model of the European countries. In order to achieve this object, they tried a number of methods simultaneously. One of these methods was the sending of students to Europe. With this aim in view, the Government undertook as early as 1810 to send successive groups of scholars to Europe, and more recently to America, in addition to the students who went abroad at their own expense. One of the most important of these missions was that sent in accordance with a law of 22nd May 1928, by which the Minister of Public Instruction undertook to provide 100 scholarships a year for six years. The scholarships of other ministries, of which there are a considerable number, are not included in this figure.

The second method was the creation of specialized (professional and technical) colleges on the European model. The first college of this type to be opened was the Polytechnic School (*Dar-al-funoun*), founded in 1849, where many branches of the arts and practical sciences were taught. After *Dar-al-funoun*, similar schools were established in the provinces, but they did not last long. In 1900, a School of Political Sciences was founded at Tcheran. Between the Constitution of 1906 and the creation of the University of Tehran in 1934, other specialized colleges were founded, such as the Law School, the Medical School (a section separated from the old Polytechnic School), the Teachers' Training College, the Agricultural School, and other art and technical schools. The predominant aim of all these institutions was to produce people qualified for posts in the service

of the Government. A third method, which may be considered as a subdivision of the second, and which contributed largely to the penetration of the western spirit into the new centres of higher learning in Iran, was the acquisition of European professors, of whom the majority were French, to teach in the specialized colleges.

During this period, which stretches from the beginning of the nineteenth century to the third decade of the twentieth, the *madrasas*, remaining aloof from any reforms, went through some critical times, and, on account of the minor part which they played, notably in the years immediately preceding the establishment of the university, almost lost their *raison d'être*.

The Modern University

The creation of the University of Teheran dates only from 29th May 1934. This very recent date may at first sight surprise the reader and lead him to wonder why the evolution of European higher education in Iran, which began a century ago, should have taken so long to achieve its natural end, the University. In reality, this delay had many causes, the chief of which are as follows: in the first place, the internal and external position of the country must be considered. On the one hand, the rulers, with a few exceptions, regarded European higher education with mistrust, because it contained within it the germs of liberalism and rationalism, both of which were incompatible with their private interests. On the other hand, the selfish attitude of these rulers was to a great extent encouraged by foreign elements, whose views and interests, both existing and potential, were difficult to reconcile with the awakening of the Iranian nation. Secondly, as a result of considerations to which we have referred above, what was chiefly demanded of institutions of higher learning based on the European model was to produce practical and immediate results. It is obvious that

a polytechnic college and other specialized colleges were better suited to this requirement than a university animated by the widest and most disinterested conceptions of knowledge. They may also have thought that to found such institutions would be to prepare the way for those theoretical discussions and unlimited speculations from which the ancient homes of Iranian higher education, the *madrāsas*, were suffering so severely. In addition, it must be pointed out that during a large part of the nineteenth century the University was not in great favour in France, a country whose intellectual and educational activities were not without repercussions in Iran. Lastly, the delay in the creation of the university is due to a third cause, less obvious, but more profound: this was a conflict, sometimes latent and sometimes declared, between the partisans of the traditional higher learning and the champions of European education. The former accused the latter of preferring tangible and material results to the nobler aims of philosophical theories, and of renouncing the traditional religious culture. To which their adversaries replied by calling them demagogues, dogmatists, and fanatical conformists, whose studies and efforts were so much time wasted.

The Constitution of 6th August 1906 and the supplementary arrangements which followed it marked a distinct step forward, in their insistence on the necessity of a general reform of education, and by creating in public opinion an atmosphere of enthusiasm and hope for the future; but because of the internal and external position of the country, the realization of these projects remained impossible until after the Great War.

With the accession to power of His Imperial Majesty Riza Shah Pahlavi, on 23rd February 1921, a new era began for the Iranian nation. In the following years, all branches of political, industrial, and educational life in the country

profited by thoroughgoing reforms, and higher education, in its turn, was not neglected. First of all, the existing specialized colleges were perfected or new ones created, so that in actual fact most of the constituent elements of the university were ready before its legal foundation. On the other hand, the causes already quoted, which were opposed to the establishment of the university, gradually disappeared one by one: the selfish opposition or indifference of the former authorities gave way to the energetic impetus of the reformer; the specialized colleges no longer satisfied entirely the intellectual needs of the new society; as for the conflict between the partisans of the old and new forms of higher learning, a formula of compromise was found in the very establishment of the new university, for, as will be seen, its first task is to reconcile the two tendencies.

The University of Teheran, created by a law of the 29th May 1934, had by June 1937 a total enrolment of 1,529 men and women students; this number shows an increase of 218 students in comparison with the same month in 1936. The number of women students in June 1937, i.e. two years after their emancipation by the abolition of the veil, was eighty. The majority of them appear to have indicated their preference for medical and literary studies. The six faculties which make up the University of Teheran are as follows: the Faculty of Physical and Mathematical Sciences, the Faculty of Letters, Philosophy, and Pedagogy, the Faculty of Medicine, the Faculty of Law and of Political and Economic Sciences, the Technical Faculty, and lastly the Faculty of Theology, or—more precisely—the Faculty of Islamic Sciences. This last faculty has the peculiar function of being a link between the old and new universities. In fact, it is thanks to this faculty that Islamic studies, after passing through some critical times, are able to continue in the very heart of the modern university, while profiting

from the new educational methods. It has been the field for reconciliation between the two formerly opposed conceptions.

As regards the number, character, and formation of the other faculties, it will be seen that, in the new university, neither the technical and practical nor the theoretical sides of modern science have been neglected. And if the place reserved in the whole structure for technical education seems somewhat large, it must be remembered that this is a result of the great and urgent need of the country in this domain. As for the co-ordination and harmonizing of the various theoretical and practical activities, as well as of the cultural traditions and new intellectual aspirations of the country, it must not be forgotten that this double object was the original reason for the foundation of the university.

The part which the university plays, or, in view of its recent birth, is called upon to play in the national life emerges from all these considerations. The fact that the country has not been content with the specialized colleges and with sending students abroad is eloquent proof that the task entrusted to the university is a higher one than that of merely preparing government officials. In addition to its duty of providing for the needs of the public and social services, the university proposes to concentrate and systematize the intellectual efforts of the nation. It sets itself to guide research, whether practical or theoretical, scientific or literary, towards the national ideal. In the religious field, the part played by the modern University is becoming gradually more important. In return for the protection which it gives to the ancient Islamic studies, it requires that these rid themselves of the legendary prejudices which generally surround religions undermined by old age, by the ravings of fanaticism, and by demagoguery. The students of Moslem theology will, thanks to the University, no longer be strangers

either to the evolution and conceptions of other religions, nor to modern thought, with all its positivist and idealist tendencies. In addition to students, public preachers also come to acquire fresh knowledge and take the examinations of the new preaching institutes incorporated in the Faculty of Theology.

Even if it is to be regretted that the entry of the university upon the stage of the national destiny was so late, it must equally be recognized that this lateness has had at least a double advantage. On the one hand, the university has avoided the disadvantage of having all its departments established at one moment; for as we have already mentioned, there existed in the country, on the eve of the foundation of the university, specialized schools of which several were transformed into faculties and so incorporated in it. On the other hand, the university arrived at the moment when the long conflict between the European conception and the traditional national conception had come to an end, and when a ground for understanding was being sought in both camps. This ground the modern university provided. If it had come into being earlier, it might have been an instrument of opposition or a hotbed of contention.

In order to form an idea of the nature and limits of the influence of European conceptions in the new Iranian university, it may be useful, while referring to the details furnished above, to regard the question, not as a whole, but in its different aspects. The most important of these aspects may be stated as follows: firstly, as regards the western method of education, it can be claimed that this has been adopted unanimously in its general outlines. It has even begun to penetrate into the establishments of the traditional higher learning. It is, however, worth adding that in recent years two very marked tendencies have been observable, the one extolling the Latin method which was first introduced,

the other preferring the Anglo-Saxon method of education. Next, with regard to the various European notions of the aims, the role, and the character of the universities (for example the question whether knowledge within the university should be generalized or specialized, or whether the universities should be in the service of a free or of a controlled culture), it must be said that the modern university of Iran has not shown itself disposed to apply unreservedly any one conception of this kind. This is due first of all to the realization that these problems have not found a final or satisfactory solution in the heart of the European universities themselves; but apart from this consideration there is a further ground, in that such a quick decision on the part of a young university, in dealing with problems demanding ample experience and mature reflection, would, it is felt, prove to be hasty, risky, and reprehensible.

The Future

It is evident that the University in Iran, so far as its vital principle is concerned, is not an unprecedented innovation. All the same, in its present form, it appears as quite a recent institution and one for which the future is of primary importance. In order to have a glimpse of its prospects for the future, it is only necessary to reflect for a few moments on the different contributions which the University has begun to make to the intellectual life of the country, which have been referred to above. Should it, remaining faithful to the aims which it has set before itself, go unhesitatingly forward, it will be a new element of justifiable pride for a people which in the past has rendered signal service to the cause of civilization; it will become the most powerful factor for social reform, and instead of breaking that precious tie which links the nations' past with their future, the University will be the means of consolidating it. It will become one of the centres

of the new culture resulting from synthesis, the emergence of which depends on a deep mutual understanding and sincere collaboration of the East with the West. Lastly, it will contribute to the perpetual advance of learning, that learning which is, and always will be, one and universal.

Translated from the original French.

The Hebrew University of Jerusalem

NORMAN BENTWICH

History

THE Hebrew University of Jerusalem is, on the one hand, the crown of the Hebrew educational system in Palestine and, on the other, the most conspicuous symbol of the intellectual renaissance of the Jewish people. It was conceived over fifty years ago by a Jewish professor of mathematics at Heidelberg University who, in the dawn of the movement of the 'Lovers of Zion', called on the Jewish people to establish 'an intellectual centre in Jerusalem'. The idea did not come to earth for thirty years. But in 1913 Dr. Chaim Weizmann, then Reader in Chemistry at Manchester University and the leader of the young Zionists who emphasized the place of Hebrew culture, prevailed on the Zionist Congress to appoint a committee for working out a specific plan of a university. The Jewish settlement in Palestine was growing: the Hebrew movement was arresting attention: a university would put the seal on their effort in its cultural aspect. The committee negotiated for a site on Mount Scopus, high above the city. It was the house and garden of an English lawyer, Sir John Gray-Hill; and the grounds cover about sixty acres. Before the negotiations were completed the War broke out; but when in 1917 the Balfour Declaration was issued, and Dr. Weizmann, now the head of the Zionist organization, went out to Palestine

with a Zionist mission to prepare for the implementing of the Declaration, he included in the objects of the mission to enquire into the feasibility of the scheme for establishing a Jewish university.

In June 1918, while the campaign was being waged in the Jordan valley twenty miles away, and to the accompaniment of the firing of the guns, twelve foundation-stones, one for each tribe of Israel, were laid on the site in the presence of General Allenby, the heads of the Moslem and Christian communities, and an assembly of Jews of the redeemed part of Palestine. Dr. Weizmann declared that the founding of the university in the midst of war meant that the Jewish people were determined to go beyond restoration, and create something in their national home which would be an instrument for a better future. Learning was the Jewish dread-nought; and in the university the wandering soul of Israel would reach its haven.

Some time passed before steps could be taken to build upon the foundation. In 1924, however, a beginning was made with two research institutes, one of biochemistry, the other of Hebrew and Jewish studies. The Jewish people, for whom, it has been said, study has always been a key to progress and civilization, has contributed eminently to learning and science in many European countries. In their infant university there was not so much the impact as the direct importation of the ideas of the European University. They proposed to start with what was the most advanced stage of university work in the West. A decision had been taken that in its first period the university should be primarily concerned with research rather than teaching: it should seek to add to knowledge before imparting it. American Jews took a principal part in providing the means for inaugurating the institutes; and an American Jewish leader, Dr. Judah Magnes, who had been a rabbi in New York and prominent

in the organization of that vast Jewish community, came to Palestine to devote himself to the building up of the university, and was appointed its Chancellor.

The university was formally opened in April 1925. Lord Balfour, the author of the Declaration, came out to gather the first-fruits of his planting; and in the open-air amphitheatre in the grounds of Mount Scopus, before a vast audience which included representatives of universities and scientific institutes from all parts of the world, and Jewish delegations from all parts of the dispersion, he declared the university open. He stressed in his address the special character of the university and the novelty of the experiment. A new epoch was beginning in the history of the Jewish people when they would again make a contribution to civilization, not by the separate efforts of individuals, but in a national home. It was, too, a new experiment to adapt western methods and the western form of university to an eastern country and to education in an oriental language. Reminding his audience of the contribution which three Jews of his generation, Einstein, Freud, and Bergson, had made to thought, he spoke with conviction of the contribution which the Jews would make from their own university, and of the fitness of Hebrew as an instrument that could be adapted to every realm of knowledge.

The ceremonies of the opening included the laying of foundation stones of two institutes, of mathematics and physics. An annual income of £40,000 was secured, largely from America, and there was a rapid development in two directions, the humanities and the biological sciences. On the side of the humanities the Institute of Jewish Studies, which embraces every branch of the spiritual and intellectual heritage of the Jewish people, was supplemented by a School of Oriental Studies, which covers Arabic literature and language, the art and archaeology of the Near East, Egyptology,

Assyrian and other oriental languages; and the Institute of General Humanities, which includes philosophy, classical and romance languages and literatures; ancient, medieval, and modern history and international relations. On the side of the sciences eight departments were established: the Department of Chemistry, which comprises four sections: biological, inorganic, applied, and physical; the Institute of Physics; the Institute of Mathematics, concerned particularly with pure mathematics; the Departments of Botany, Zoology, and Geology, which are engaged in research into those aspects of the natural history of Palestine and the surrounding lands; the Department of Parasitology, which is engaged on the study of Mediterranean diseases; and the Department of Hygiene and Bacteriology, which is concerned partly with the study of infectious diseases prevalent in the country, such as malaria, and partly with research into human and animal nutrition. New buildings were added on the Hill of Scopus for these departments; and if the grandiose plan for the university, which had been prepared by Sir Patrick Geddes, was far from achievement, one part of it, the National and University Library, arose on a commanding pinnacle confronting the Holy City.

The guiding aim in the first period of growth was to develop those studies and sciences for which Palestine offered some special quality. They were obviously, on the one side, the Hebrew and Jewish heritage, and the culture and civilization of other Semitic peoples; and on the other side those sciences which concern the well-being of the country and neighbouring lands. At the same time the university was anxious to bring out that, while Jewish studies lie at the heart of the intellectual revival, they must form part of a broad humanistic discipline. The study of Hebrew literature, Jewish philosophy, and Jewish history, as well as of Arabic thought, should be combined with the

study of general philosophy, general history, and the classical languages. In this way the School of Humanities of the Hebrew university would be brought into line with the schools of the universities of Europe, and at the same time make its distinctive contribution.

While the Faculty of the Humanities is concerned with the biology of Judaism, the Faculty of the Sciences is concerned with the biology of Palestine and the Middle East. The physical conditions conduce to research; for the buildings of the university are situated on one of the great dividing places of nature. Westwards from them you observe the natural life of the Mediterranean, Eastwards the natural life of the orient and the desert.

The scientific work of the university has received recognition from outside bodies. The Department of Hygiene, under an American, Professor Kligler, has obtained the commendation and material support of the League of Nations Health Organization for its work in combating malaria, and of the Empire Marketing Board for its study of nutrition. Professor Adler, the head of the Department of Parasitology, has been commissioned by the Royal Society of England to conduct researches in the Mediterranean region into certain diseases. The collections of botany, zoology, and geology that have been brought together on Mount Scopus are recognized as the most complete in the world. The Institute of Jewish Studies is to-day probably the best equipped of the kind in existence, and makes a constant literary contribution to the knowledge of Jewish history, philosophy, literature, and law. Its Department of Archaeology has taken an important part in several excavations, and the Professor of Hebrew Philology interpreted the letters of Lachish—Hebrew documents written on pottery in the time of Jeremiah—which were discovered by the Wellcome archaeological expedition. The School of Arabic Studies

has been engaged in the publication of the text of an early Arab historian and the preparation of an anthology of Arabic poetry; and one of its staff has published a translation of the Koran into Hebrew. The Royal Commission which reported upon Palestine in 1937 remarked that the university 'on the fringe of Asia' maintained the highest standards of western scholarship. 'It wisely concentrates in its research work on such exhaustive study of Palestine and the neighbouring countries as cannot be made elsewhere. In so doing it has made a valuable contribution to our knowledge of the Near East, and in particular of Arab life and culture.'

Development of Teaching

After a few years, teaching became an important activity of the university. It was not that research could not be pursued effectively without teaching; but there was a growing and insistent demand for regular courses of lectures, and after a short time, for examinations and degrees. To that extent, the university had to become more normal. Events were stronger than theories, and the intention to concentrate on research had soon to be abandoned. From the outset, students both from Palestine and from other countries required regular teaching in the humanities, and systematic courses were arranged to lead to the degree of Master of Arts after four years of study. A few years later a similar demand came from students of the sciences, and courses of biology were established to lead to the degree of Master of Sciences. Graduates of the university and research students from other universities may qualify for the degree of Doctor of Philosophy after a period of two years' study and the presentation of a work of original research, which must be in Hebrew. The university has, however, resisted a demand for professional teaching to fit students to be doctors or lawyers or economists.

It has been said that national universities in Europe have three broad functions: firstly, to be a professional school, and provide young men and women with training for the medical, legal, and other liberal professions; secondly, to be a centre of science and to engage in higher scholarship and research; and thirdly, to be a hearth of national culture, and so influence the life of the people. The Hebrew university has set itself to carry out the two latter functions, but so far has not served the first. Instead of that, it has offered an intellectual haven for Jewish students who are debarred from universities in their own country. From the beginning, students have come from outside Palestine, principally from Poland, and in recent years they have formed a big majority. The only profession for which the university fits them is that of teaching. Palestine and Jewish communities outside suffer from lack of Hebrew-speaking teachers who have both academic knowledge and a modern method; and the university has developed a Department of Education in which both the theory and practice of teaching are inculcated. Until 1933 the number of undergraduate students averaged about 200, and in addition there were a few research students. When, however, Jews were excluded from the universities of Germany, and discrimination against them in the universities of Eastern Europe was increased, the applications multiplied for admission to study in Jerusalem. To-day the number of students has risen to 800, and they, like the professors, are an international body. Over half come from Poland. Others come from Germany, the Baltic States, countries of Central Europe; and a few from America and England. Those educated in Palestine form less than one-fifth. All who are admitted have an adequate knowledge of Hebrew, and all lectures are given in Hebrew. Far the larger number are in the Faculty of Humanities. The limited space in the laboratories restricts the admission of students of

biology. About one-quarter of the student body is composed of women.

The university is open to persons of all creeds and nationalities. A few Arabs were regular undergraduate students before the troubles of 1936 and 1937; a few have used the laboratories, and more make use of the library. One or two European Christians have been research students. Hitherto it has not been possible to find an Arab teacher for the Institute of Arabic and Oriental Studies; but it is hoped that when the present troubles have passed, the university will form a bridge between the Jewish and Arab communities. Till a few years ago the tuition was free. Then fees were introduced, which are modest compared with English standards—£10 a year for students of the humanities, and £15 for students of the sciences. The fees cover about one-sixth part of the university budget, and they have proved no deterrent upon the demand for admission. Many of the students are poor, and earn their livelihood while they are studying, lectures being given almost entirely in the afternoon and evening hours. Some have helped with their own hands to construct the buildings in which they study.

A corporate student life is gradually evolving. There is no lack of political societies, and the student body is federated in one representative council. It was hoped to build a student hostel on Mount Scopus where they might gather in a common-room for common meals and meetings, and a few might reside. A site was given, but a very small portion of the necessary funds was raised. In 1935, however, a benefactor gave the money with which a university club-room for both professors and students has been built. But the student-life has developed largely outside the walls of the university. Students live in the town, which is some two miles away, and come and go in buses. A beginning has

been made of athletic development, gymnastics, a choral society, and orchestra. Following the example of many modern universities, and at the same time influenced by the example of the old English universities, it is the aim to establish a university settlement on the ridge of Mount Scopus, where professors, doctors of the hospital, students, and some of the staff of the university and hospital may live together. The land has been acquired, but the 'University City' is still to be built.

Recent Development and Extension

The university expanded steadily during its first eight years, till in 1933 it took on a new function and stature. The catastrophic exile of Jewish intellectuals from Germany, the sudden deprivation of a thousand Jewish academic workers, aroused the Jewish and the general public. The university in Jerusalem, which, when it had been opened, had seemed a luxury for a country with less than a hundred thousand Jews, was now recognized as a necessity. Two things could be achieved at the same time: the development of the Faculties in a normal way, and the provision of a permanent home for men of scholarship and science. Owing to the many calls on Jews for the assistance of the mass of exiles from Germany, the opportunity for a large extension of the university was not grasped as fully as was hoped. Nevertheless, twenty-five professors, lecturers, and academic workers from Germany have been engaged, and immediately some fifty students, whose career in German universities had been interrupted, were admitted. During the last five years the number of the academic workers has more than doubled; that of students has been quadrupled. To-day the university counts over one hundred professors, lecturers, and assistants, and as many technical and administrative workers. It has added to its faculties several men of international fame, who

include the philosopher Martin Buber, the mathematician Adolph Fraenkel, the gynaecologist Dr. Bernard Zondek. The Physics Institute has been manned by young men from Germany; the Institute of Mathematics has been enlarged; the Schools of History and Classical Languages and the Department of Education have been re-fashioned.

A larger development has been inaugurated by the building on Mount Scopus of a medical centre, which will include a town-and-university hospital, a post-graduate medical school, and a nurses' training school. The hospital, founded by the house of Rothschild and maintained in recent years by the American Women's Zionist Association, is to be transplanted and greatly enlarged, and become an institution of university character. Meantime the university has been enabled to establish at the Straus health centre in the city a Department of Radiology and Experimental Pathology which is engaged in research in cancer.

The subjects of the general humanities have been enlarged by chairs in the English, French, and Italian literatures and institutions. The French and Italian Governments provide the means for the chairs in the civilization of their countries; the Chair of English had been created by Anglo-Jewish donors. An instructor in English was appointed in 1937, and a course of lectures in modern English literature was given by a visiting professor at the end of that year.

Other ventures, which it is hoped soon to realize, are the establishment of an institute of agriculture, which will be closely attached to the Daniel Sieff Institute of Chemical Research and the Agricultural Experimental Station in the Jewish village of Rehovoth, and the building of a museum of archaeology, which will house collections recording Jewish history through the ages.

Library and Museums

The National and University Library contains already far the largest collection of books in the Near East, which numbers to-day over 350,000 and grows at the rate of 20,000 annually, largely from contributions of Jews and non-Jews, Governments, learned societies, and individuals in all parts. The collection is in all languages, and particularly rich in Hebrew and German. It is catalogued throughout in Hebrew and the European language of each book. The library building contains, besides the large reading-room and book stacks, a room of periodicals, study rooms, and a small archaeological museum (soon to be replaced). The university includes also a unique museum of biblical botany, in which the flowers and plants of the Bible are displayed by some life-like process. The museum is housed under the stage of the open-air amphitheatre, and on that stage concerts, oratorios, and dramatic performances are occasionally given to an audience of thousands.

The University Press

The university conducts a small press, which publishes academic and scientific works of members of the staff and text-books for the students. One of its principal enterprises is the issue of translations in Hebrew of the classics of philosophy. It issues also a quarterly review in Hebrew devoted to the humanities, and a bibliographical quarterly.

Administration and Budget

The administration of the university is controlled by an international board of governors, which comprises distinguished Jews of all countries. The broad lines of the

constitution of British and American universities have been followed. The governing body is composed of men of public position as well as of academic distinction, who deal with the broad questions of policy and are intended to assist in the raising of funds. The governing body of the Hebrew university has, however, a special character, arising out of the international distribution of the Jews and the fact that the university is not simply for Palestine but for the whole people of Israel. Its President is Dr. Weizmann; and its members include Einstein and Freud, Lord Samuel and James de Rothschild from England, Mr. Justice Frankfurter and Dr. Stephen Wise of America. The board meets normally once a year in Europe, determines the budget, and makes the appointment of professors. The direction of academic affairs is regulated by a senate in Jerusalem, composed of the professors and lecturers and representatives of the assistants, while the administrative concerns are directed by a council in Jerusalem composed partly of leading men of affairs and partly of members appointed by the senate. The rector, who presides over the senate, is elected yearly by his colleagues in the senate, and may be re-elected. The office of Chancellor has been abolished, and Dr. Magnes is now President of the university, and represents it to the Government of Palestine and other bodies.

The Institute of Jewish Studies is governed by a separate council, of which the president is the Chief Rabbi of Great Britain.

The budget of the university for the year 1937-8 amounted to over £90,000. Apart from students' fees, which produce about £12,000, the budget has to be covered by contributions from societies of Friends of the University in different countries. Almost half of it is contributed by Jews in the United States. The income from endowments is small, and the university receives only a tiny subvention for special researches

from the Government of Palestine. The Government has made a contribution toward the capital cost of the new hospital, and each High Commissioner has shown a deep interest. There is, however, no official relationship between the Government and the university, and a legal ordinance, which was contemplated as the basis of the constitution, has not been implemented. The university, like other Jewish institutes in Palestine, reflects in its aim and scope, its staff and student body, its budget and administration, the double character of the renaissance of the 'Land of Israel' and an intellectual and spiritual centre of the scattered Jewish people.

Conclusion

In an appeal for the university, which was signed in 1937 by Professor Einstein, the late Lord Rutherford, Sir William Bragg (President of the Royal Society), and others, it was said: 'The University is an essential organ for the maintenance of a high standard of culture in the community of Palestine, to which the eyes of the world are at present turned; and its site in a country which is a meeting-place of East and West fits it to make a particular contribution to civilization generally.' Any person standing on Mount Scopus must feel that from that site, with its wealth of associations of spiritual history and its panorama of wonders of nature, something great and abiding will go out. The 'vision splendid', with which the university started, may fade at times, in the prosaic working-out of its departments, into the light of common day; but yet a reflection of Messianic ideas is always present to those who guide the development. The Jewish people have suffered for centuries from spiritual as well as physical homelessness. To realize their genius, they need, like other peoples, to have roots deep down in a soil. They have excelled, it has been said, in movable and

intellectual wealth. The soil is needed for cultural as well as for physical excellence, and genius needs continuity. The ideal of the university is that Jewish genius shall take root in the hard soil of Scopus; and from that soil may spring one of the little trees which bear the best fruit.